

CWCB Loan Feasibility Study

Montezuma Valley Irrigation Company

Loan Feasibility Study

Lone Pine and May Pipeline Improvements



Prepared for:
Montezuma Valley Irrigation Company
11501 Hwy 491
Cortez, CO 81321

For Submission to:
Colorado Water Conservation Board
Finance Section
1580 Logan St, Suite 600
Denver, CO 80203

FEASIBILITY STUDY APPROVAL
Pursuant to Colorado Revised Statutes 37-80-121 & 122, and in accordance with policies adopted by the Board, the CWCB staff has determined this Feasibility Study meets all applicable requirements for approval.
[Signature]
Signed
3-20-12
Date

January 2012

AG File No. 11-127



Applegate Group, Inc.

Water Resource Advisors for the West
1499 W 120th Ave Suite 200
Phone: 303-452-6611
Fax: 303-452-2759
www.applegategroup.com

MONTEZUMA VALLEY IRRIGATION COMPANY

11501 Hwy 491
Cortez, CO 81321
(970)565-3332

Board of Directors:

Randy Carver - President
Rowdy Suckla - Treasurer
Wayne Goodall
Greg Black
James Snyder
Danny Decker
Tom Blackmer

Management and Staff:

Don Magnuson, General Manager
Michelle Butler, Office Manager
Mike Higman, Operations Manager
Brad Reed, Assistant Manager/Water Master

Attorney:

Kent Holsinger
Holsinger Law, LLC
104 Broadway, 3rd Floor
Denver, Colorado 80203
kholsinger@holsingerlaw.com
(303) 722-2828

Auditor:

James Yureskes
CFM
3110 South Wadsworth Boulevard Suite 303
Lakewood, Colo 80227
jamesCPA_CFM@cfmpc.com
(303) 987-1091

Consulting Engineer:

Applegate Group, Inc.
1499 W 120th Ave, Suite 200
Denver, CO 80234
(303) 452-6611

TABLE OF CONTENTS

Background.....	1
Purpose.....	1
Study Area Description	1
Project Sponsor	2
Project Description	3
Project Overview.....	3
Lone Pine Pipeline Debris	3
Lone Pine Pipeline Pressure.....	3
May Pipeline Debris.....	3
Flow Measurement/Data Collection.....	3
Trash and Debris Removal.....	4
May Pipeline Intake	4
Lone Pine Pipeline Inlet.....	6
Pressure Management.....	8
Alternative #1	9
Alternative #2	10
Alternative #3	11
Flow Measurement	11
Proposed Upgrade.....	12
Project Cost Estimate	13
Implementation Schedule	13
Financial Feasibility Analysis	14
Loan Amount.....	14
Financing Sources.....	14
Financial Statements	14
Loan Repayment Sources	14
Financial Impacts.....	14
TABOR Issues	14
Appendix A: Project Maps.....	15
Appendix B: Conceptual Plans.....	16
Appendix C: Detailed Project Costs	17
Appendix D: Financial Statements.....	18
Appendix E: Bylaws and Articles of Incorporation.....	19
Appendix F: CWCB Application.....	20

BACKGROUND

PURPOSE

The Montezuma Valley Irrigation Company is proposing this project to address operational issues that have arisen after the completion of two piping projects. The components of this project will reduce maintenance and operational costs associated with the two existing pipelines as they are currently configured.

STUDY AREA DESCRIPTION

The Montezuma Valley Irrigation Company (MVI) canals service more than 30,000 acres in Montezuma County. A map of the MVI service area is attached in Appendix A. This project specifically focuses on two Pipelines, the Lone Pine Pipeline and the May Pipeline. A figure showing both canals and project components is also included in Appendix A.

The Lone Pine Pipeline is located at the downstream end of the Lone Pine Canal which originates at McPhee Reservoir. Approximately 5.7 miles of the canal was piped through a United States Bureau of Reclamation Salinity Control Program Grant between 2009 and 2011.

The May Pipeline diverts water out of the Upper Hermana Ditch which originates at Naraguinnep Reservoir. The May Pipeline was piped in 2008-2009 with partial funding from the NRCS.

PROJECT SPONSOR

Montezuma Valley Irrigation Company, a privately held corporation organized as a 501(c)12 non-profit corporation in the State of Colorado, was initially organized in 1880 to begin working to divert water from the Dolores River. This work consisted of a tunnel through the divide and a canal that cut across the Dolores Divide between the Dolores and San Juan Rivers. These projects were completed in 1889 and in 1892. The current MVI received a decree for appropriation from the river of 64.6 cfs and a conditional decree for 1,234.4 cfs for a total authorization of 1,300 cfs. Later, of those remaining conditional rights, an additional 643 cfs was made absolute. Included in MVI's water rights, are two reservoirs: Narraguinnep holds approximately 19,000 acre feet and Groundhog holds approximately 21,700 acre feet. Up until 1988, the 124 miles of canals delivered water to the shareholders from their direct flow rights and their rights from their reservoirs.

In 1977, MVI entered into a contract with the Dolores Water Conservancy District to transfer 505 cfs of their remaining 592 cfs conditional rights and all of their excess water rights for the benefit of receiving supplemental Federal Project Water through the Dolores Project. This benefit purchased by MVI allowed for late season irrigation that was virtually unobtainable under their existing system. MVI also gave up ownership to the Towaoc/Highline canal so that the Bureau of Reclamation could renovate it and use its existing route to supply the Ute Mountain Ute Indian Reservation. MVI chose to remain unregulated from the government so as to maintain its private ownership and decrees under the State of Colorado. It currently supplies over 30,000 acres of irrigated land under its system and has 1,407 shareholders.

PROJECT DESCRIPTION

PROJECT OVERVIEW

There are three distinct components included in this project;

- 1) Trash and Debris Removal
- 2) Pipeline Pressure Management and
- 3) Water Measurement

The next paragraphs describe the operational and maintenance issues that are driving this project.

LONE PINE PIPELINE DEBRIS

The Lone Pine Pipeline inlet accumulates a significant amount of debris and trash and requires a regular maintenance to remain operational. This requires diverting a significant amount of man-hours of time for debris removal. The original trashrack had been modified to include a smaller screen to catch more debris, but as a result the screen plugs more frequently. The debris that does pass through the screen into the pipeline is causing operational issues with the Pressure Reducing Stations. Debris can get caught in the PRV's which causes pressure problems in the piping system.

LONE PINE PIPELINE PRESSURE

The Pressure Reducing Stations have had other operational issues along with the debris. The pipeline is pressure rated for between 50 and 110 psi, but the pressure reducing valves as installed are unable to maintain the pressure below this rating throughout the entire pipeline. This is resulting in accelerated wear of the pipeline and pressure relief valves. In an attempt to reduce pressures to a reasonable level, one pressure reducing valve was operated beyond its design range and did sustain some damage due to cavitation last season. There is also the potential for a catastrophic failure of the pipeline at some point if there are significant pressure fluctuations caused by some of these operational deficiencies.

MAY PIPELINE DEBRIS

The May Pipeline Intake is a fairly remote structure that is very hard to access during wet weather. The Pipeline inlet is equipped with remote automation, but this pipeline suffers from inadequate screening that requires a significant amount of maintenance. The existing screen on the intake plugs with larger debris and allows smaller debris to enter the pipeline.

FLOW MEASUREMENT/DATA COLLECTION

All turnouts on the Lone Pine Pipeline were fitted with ultrasonic sensors, dataloggers, control panels, and solar panels to allow water users to monitor their delivery on site, while MVI uses data for delivery records. The turnouts on the May Pipeline do not have the ability to record or totalize delivery, because they were installed without a control panel or power source. MVI has determined that establishing an accurate delivery record is a high priority; therefore this project proposes to install control panels and solar panels on at each of the turnouts on the May Pipeline.

In the following sections alternatives will be analyzed for each of the components and their affect on the others considered.

TRASH AND DEBRIS REMOVAL

As described previously, two sites are in need of additional screening, the Lone Pine Pipeline Inlet and the May Pipeline Intake. There are several alternate approaches using basic types of screening techniques that were considered for both of these sites;

- 1) **Trashrack and/or screen requiring periodic cleaning** – This is the most traditional method of screening and is currently employed at both of the MVI sites. These screens have been shown to be highly labor intensive given the level of debris that enters these canals. Depending on the size and volume of debris these screens can be a low cost and effective choice, but these screens require excessive maintenance without producing the desired effect.
- 2) **Motorized traveling screen** – Motorized traveling screens prevent debris from accumulating on the screen using brushes or spray nozzles and a conveyor to set the debris aside. For canals, like these, with a large volume of debris, these screens can reduce labor and increase reliability. There is a relatively large initial investment and the screens do require a power source to operate.
- 3) **Self cleaning wedge wire screen** – Wedge Wire screens are non- motorized, self cleaning screens that, in the right situation, can be virtually maintenance free. They are relatively inexpensive to install and can screen out particles as small as a fraction of a millimeter. In order for the screen to operate properly, some amount of bypass flow is required, and appropriate site geometry including some fall in the water surface elevation across the screen. Not all sites are ideal for wedge wire screens, but they are a low cost, low maintenance alternative that does not require power.

MAY PIPELINE INTAKE

The May Pipeline Intake was constructed through several projects. A check structure is located in the Hermana Canal just downstream of a slide gate at the top of the May Pipeline. The slide gate controls the flow of water beneath the access road into a settling basin. The intake for the pipeline is just downstream of the settling basin with a screened inlet, as shown in the photographs below.



Hermana Ditch check structure and May Pipeline Slide Gate.



May Pipeline Settling Basin and Intake

Conceptual Plan

Each screening option above was considered for this site. The inlet currently has a trashrack constructed of vertical bars with an expanded metal screen overlaying the bars. This method of screening has proved ineffective over the life of the structure. A traveling motorized screen and a self cleaning wedge wire screen is considered in more detail below.

Motorized Traveling Screen

The configuration of the existing concrete structure is well suited to the installation of a traveling screen. Few modifications will need to be made to the intake, the screen will be able to “slip” into the existing structure. The difficult part of using a traveling screen at this location is access to power. There is a large transmission line close to the site, but no distribution lines. Alternative sources of electricity would need to be considered at this site. A conceptual drawing of the design of this screen is included in Appendix C.

Costs

The motorized screen and necessary civil modifications including installation would cost approximately \$70,000. The power source will add an additional \$10,000 – 30,000 depending on the source, diesel generator or solar panels. Both of these options will require lifetime maintenance, operational and replacement costs in addition to the up-front installation cost. The diesel generator will also have fuel costs over the life of the structure.

Self Cleaning Wedge Wire Screen

A self cleaning wedge wire screen is attractive at this site because it does not require electricity, and the bypass flow required is available at this point in the canal. The flow that continues down the Hermana Canal can be used to clean the screen and keep it free of debris. Several configurations were considered, but with the head available a side spill is most appropriate. There is an existing Rubicon Gate in the canal structure that can be utilized to check up the upstream water surface and force the diversion over the side spill. Below is a picture of a similar structure installed in a canal.



Typical Side Spill Coanda Configuration

A conceptual layout of the required structures is included in Appendix C. This plan was used to develop cost estimates for the project.

Costs

The major advantage of this type of screen is that there are very little operation and maintenance expenses. This must be considered when comparing the installation cost of a motorized screen to the installation cost of a wedge wire screen. It is estimated that a mechanized screen would require an annual expenditure of \$500-\$1,500 for energy consumption, and \$1,000-

\$2,000 for annual maintenance of the mechanical components.

The total installation cost of the proposed configuration is \$97,000. This price includes new concrete structures, the wedge wire screen, and an extension of the pipeline. The pipeline is extended through the existing settling pond to ensure that no additional trash is accumulated in

that stretch of open water downstream of the new screen. The trash that bypasses the Pipeline inlet will continue downstream in the Hermana Ditch. This is an open ditch with no other pipeline Pipelines making it more reasonable to deal with the trash downstream.

Preferred Alternative

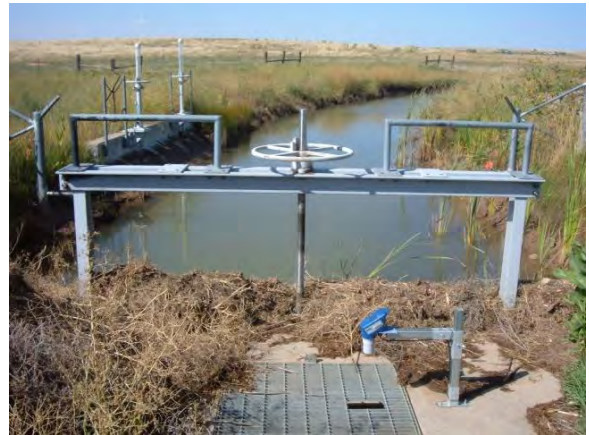
Due to the comparable installation costs, and the lower operation and maintenance cost a self cleaning wedge wire screen is recommended for this site.

LONE PINE PIPELINE INLET

The Lone Pine Pipeline Inlet was constructed about 10 years prior to the salinity project that funded the piping of almost 6 miles of the canal. Previously only 2200 feet were piped from this inlet. The Lone Pine Canal dead-ends at the pipeline inlet and there are two turnouts just upstream of the existing screen. As shown in the photographs below, a significant amount of debris collects on the existing screen.



Lone Pine Pipeline Inlet existing screen covered with debris



Lone Pine Pipeline Inlet and turnout just upstream

This screen is located in line with the canal, there is no bypass flow as exists on the May Pipeline Intake. Therefore screening with a coanda screen would not be possible at this site. Also the existing trashrack has proven to be inadequate to screen the level and size of debris seen at this site. This site is most appropriate for a motorized traveling screen that can operate intermittently to remove debris from the water and pile it on the side of the canal. There is a power line along a nearby roadway that is accessible by the canal right of way. This power line can be extended to the site. Below is a photograph of a typical installation of a motorized traveling screen in line with a canal.



Typical Motorized Traveling Screen Installation

Conceptual Plan

The existing concrete structure at the inlet is in very good condition. The trashrack will be removed and a minimal amount of concrete will be needed to add the motorized screen to the structure. New wingwalls will be added beside the screen to contain the flow and direct it through the screen. The existing intake for the pipeline will be reused. A conceptual plan of the configuration is included in Appendix C. The existing overflow will be utilized. An uncontrolled side spill overflow is operational approximately 3000 feet upstream of this structure. If the new screen were to fail and

become plugged with debris, the overflow would direct the canal water safely into a nearby drainage.

Power Requirements

There are several alternatives for supplying power to this screen. The local utility, Empire Electric, has a distribution line within about 3000 feet of the site. This distribution line could be extended to the site and a new transformer and meter installed for about \$33,000 including trenching costs. Alternatively, power could be supplied from an off-grid source, either a diesel generator or solar panels.

The table below compares the costs associated with three power supply options. Both the initial costs and annual costs must be included in the comparison to provide an accurate evaluation of total cost.

	<i>Initial Cost</i>	<i>Annual Operation Cost</i>	<i>Annual Maintenance Cost</i>	<i>Expected Life</i>	<i>Total cost at 50 years (2011 \$'s)</i>
Utility Connection	\$33,000	\$500	\$0	unlimited	58,000
Solar Panels	\$35,000	\$0	~\$0	30 years	70,000
Diesel Generator	\$8,000	\$1,500	\$1,000-2,000	20 years	174,000

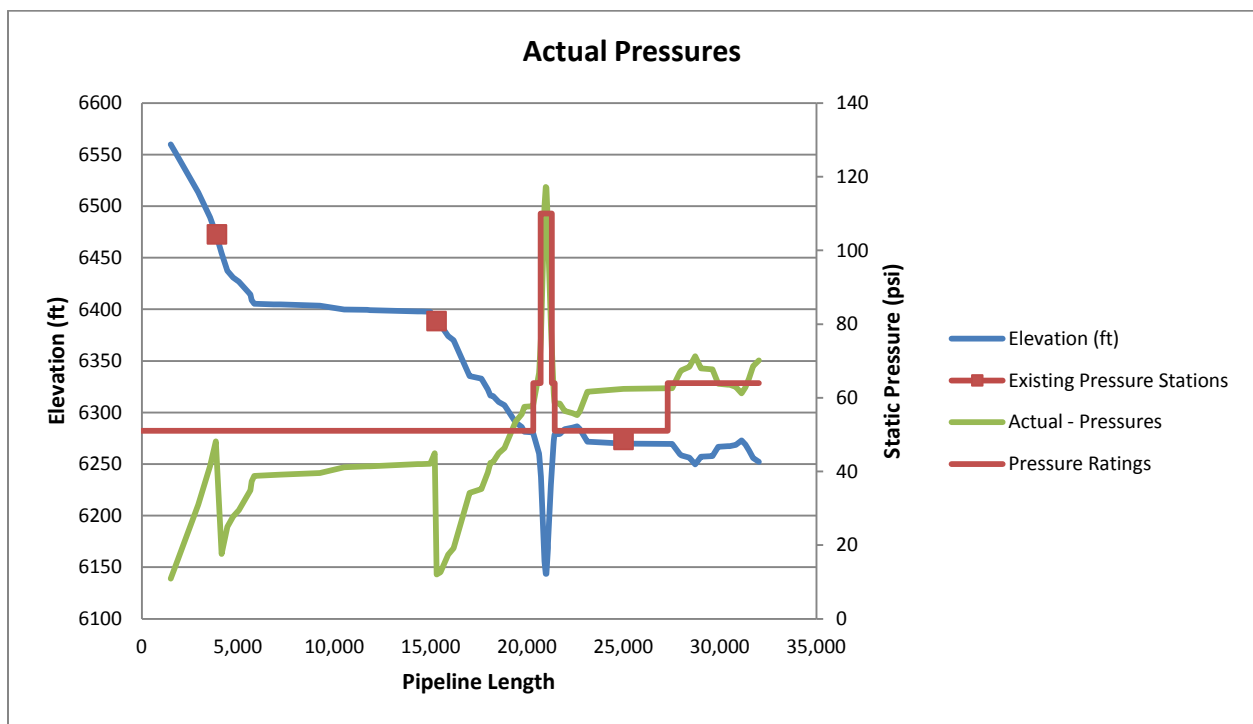
Reliability of the power supply is also a consideration. In this case a utility connection will provide a comparable lifetime cost to solar panels with higher reliability and lower maintenance and operational time and costs.

Costs

The total installation cost of this proposed configuration is \$134,500, including the screen, civil modifications and utility connection. A detailed cost estimate is included in Appendix D. This cost includes removing the existing screen, modifying the concrete structure and installing the new screen, as well as the cost of extending the power line to the site. Operational costs are expected to be minimal as the screen will be connected directly to a power line and equipped with an alarm to alert the need for maintenance.

PRESSURE MANAGEMENT

The Lone Pine Pipeline currently has two Pressure Reducing Stations housing a total of three Pressure Reducing Valves. There is also one empty Pressure Reducing Station Vault located near the downstream end of the pipeline. The locations of these stations are shown on the Project Components Map in Appendix A. The current configuration is not able to reduce pressures in the pipeline below the pipe's rated pressure. Most of the pipeline is rated for 51 psi, with the exception of the siphon through Alkali Draw, which is rated for 64-110 psi. The Chart below shows the elevation of the pipeline with the pressure reducing stations. The resulting static pressure in the pipeline is shown in Green and the red line represents the pressure rating of the pipeline. Any time the pressure rating is exceeded the green line is above the red line.

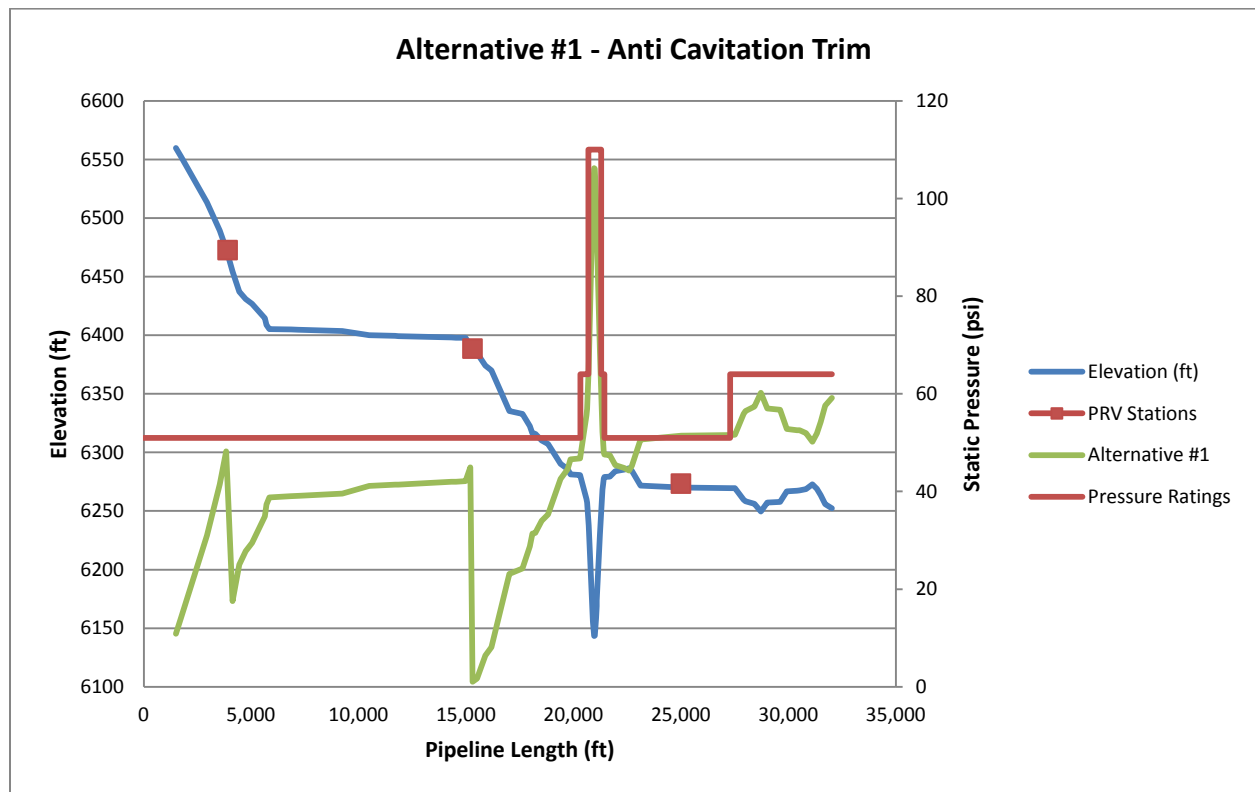


The goal of this portion of the project is to reduce the pressures within the pipeline to acceptable standards below the pipe pressure rating. Alternatives that attempt to achieve this goal are described below.

ALTERNATIVE #1

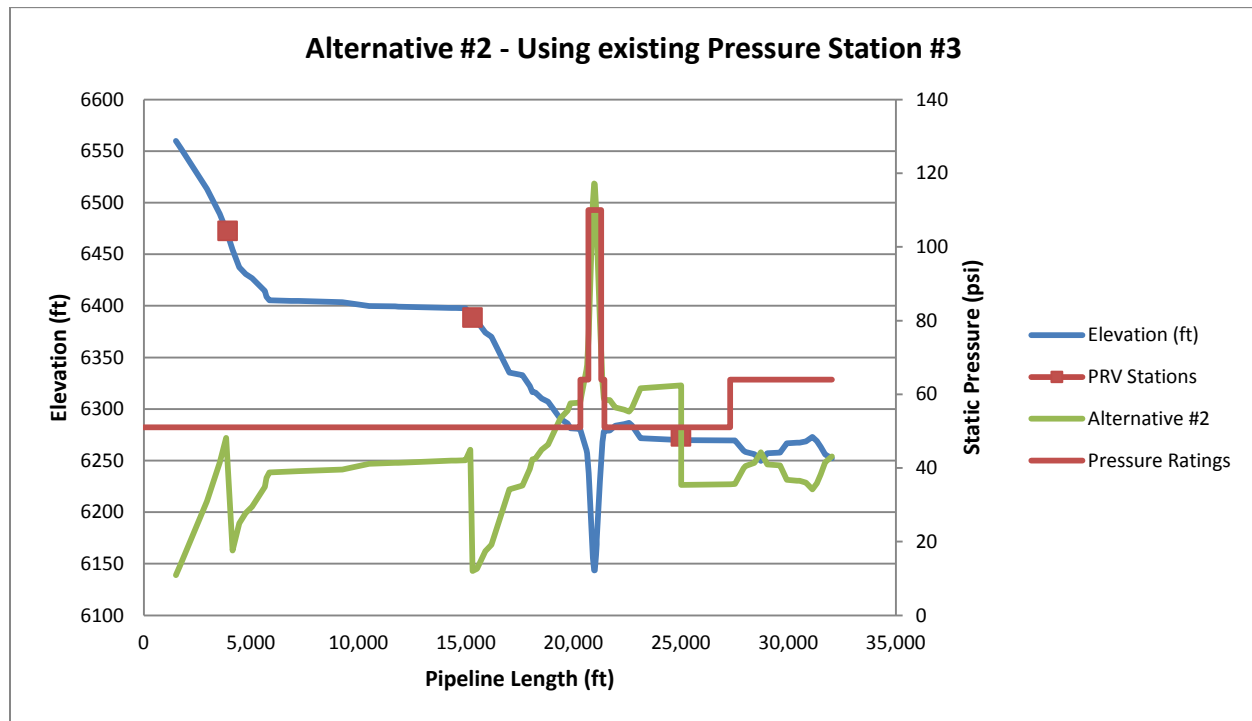
The first alternative would be to improve Pressure Station #2 to be able to lower the pressure further than is now possible. The Pressure Reducing Valve that is currently installed in Pressure Station #2 is able to reduce the downstream pressure to 12 psi without cavitation occurring. If the downstream pressure is reduced further cavitation will occur and the valve will be damaged and inoperable within a few years.

The manufacturer of the valve, CLA-VAL offers an anti-cavitation trim that can be added to an existing valve. With the anti-cavitation trim, the downstream pressure can be reduced to 1 psi. The chart below shows the resulting static pressures along the length of the pipeline. The resulting pressures stay below the pressure rating of the pipe along the entire length.



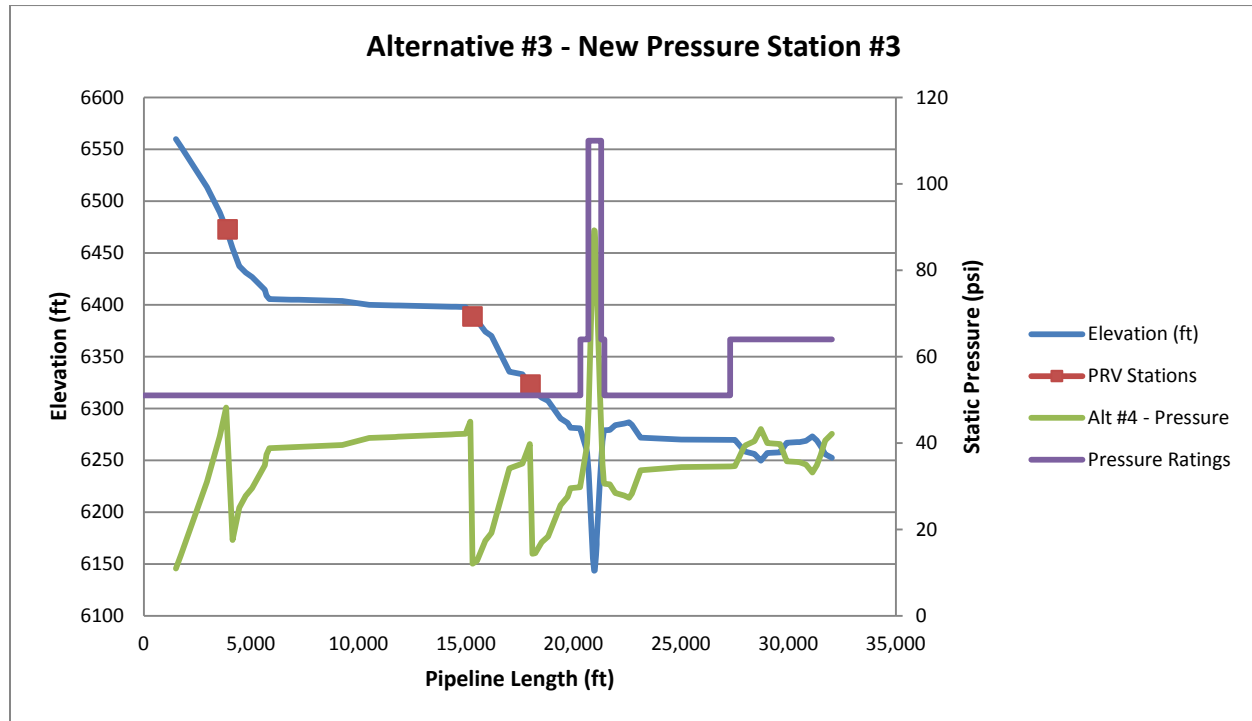
ALTERNATIVE #2

The second alternative would be to make use of the existing pressure station #3 that currently does not contain a PRV. This station is located at approximately station 250+00. The Pressure Station is ready to accept a 24" PRV, a larger vault would be required to house the additional fittings along with a 20" PRV. In this alternative Pressure Station #2 would be operated down to 12 psi and the new PRV at station #3 would be operated to 35 psi on the downstream side. As shown in the chart below the resulting pressures do not stay below the pressure rating of the pipe.



ALTERNATIVE #3

The last alternative would be to add another pressure reducing station at approximately station 180+00 corresponding to an elevation of 6322 feet. A pressure station at this elevation would allow the pressures to remain well below the pressure rating without the anti-cavitation trim as shown in the chart below. A 20" PRV could be installed in this location which would include the construction of a new vault.



Costs

The total costs of the two viable alternatives (#1 and #3) were calculated. Alternative #1 is estimated to cost \$33,000 and Alternative #3 is estimated to cost at least \$81,000. Detailed cost estimates are included in Appendix D.

Preferred Alternative

Alternatives #1 and #3 both satisfy the goals of the project with a significant difference in cost. Alternative #1 is recommended at a cost of \$33,000.

FLOW MEASUREMENT

The turnouts of the May Pipeline are equipped with measurement devices to insure proper allocation of shares. Ultrasonic flow measurement sensors were installed at each turnout, the ditch rider can attach a battery to the sensor leads to read the flow rate. MVI would like to upgrade each of these stations to include a totalizing recorder with a digital read out powered by a solar panel. This will provide for more accurate allocation of shares and improved record keeping. This should lead to better water practices by the shareholders resulting in real water conservation.

PROPOSED UPGRADE

The “Solar Paks” consist of a 12 VDC 30 W Solar Control Panel with a Window Kit. This will be used with the existing TFXL unit.

Costs

Each unit including installation will cost approximately \$1440. There are a total of 75 turnouts on the Pipeline amounting to \$108,000. A detailed cost estimate is included in Appendix C.

PROJECT COST ESTIMATE

May Pipeline Intake (Coanda Screen) – 97,000
Lone Pipeline Inlet (Traveling Water Screen) – 134,500
Pressure Management (Alternative #1) – 33,000
Flow Measurement – \$108,000

Total Project Cost – \$372,500

IMPLEMENTATION SCHEDULE

Completion of this project will solve operational issues that have been costing MVI time and money over the past few years. Therefore the Company is interested in beginning construction as soon as possible. They are willing to obtain a short term loan to begin construction before the contracts have been finalized on this CWCB loan. It is expected that construction will begin in the early spring so that the Lone Pine Pipeline screen and pressure reducing valves will be operational before diversions begin in the spring. This will also prevent the need to shut down during the irrigation season to make these improvements. The May Pipeline screen will be installed Fall or Spring of 2013, and the Solar Paks for the metering stations will be installed as time permits.

FINANCIAL FEASIBILITY ANALYSIS

LOAN AMOUNT

The total cost for all components of this project is \$372,500. Montezuma Valley Irrigation Company is requesting 90% of the total cost in the form of a loan from the Colorado Water Conservation Board in the amount of \$338,602.50 (includes the 1% loan fee).

FINANCING SOURCES

With 90% of the total project cost being requested in the form of a loan, the remaining 10% (\$37,250) will be funded from MVI's current operating budget.

FINANCIAL STATEMENTS

Please refer to Appendix D for these projections.

LOAN REPAYMENT SOURCES

Assuming a 30 year loan at the agricultural interest rate of 2.75%, annual payments on the total loan amount will be \$16,721.69. The loan will be repaid with a pledge of shareholder assessments.

FINANCIAL IMPACTS

This project is expected to save MVI a significant amount of operational and maintenance costs associated with the pipeline. Also the reduced wear on the pipelines and turnouts will extend their expected lifetime.

TABOR ISSUES

The Montezuma Valley Irrigation Company is a non-profit mutual irrigation company, incorporated in the State of Colorado, and is not subject to TABOR.

APPENDIX A: PROJECT MAPS

Montezuma Valley Irrigation Company Service Area
Project Component Locations



Montezuma Valley Irrigation Company

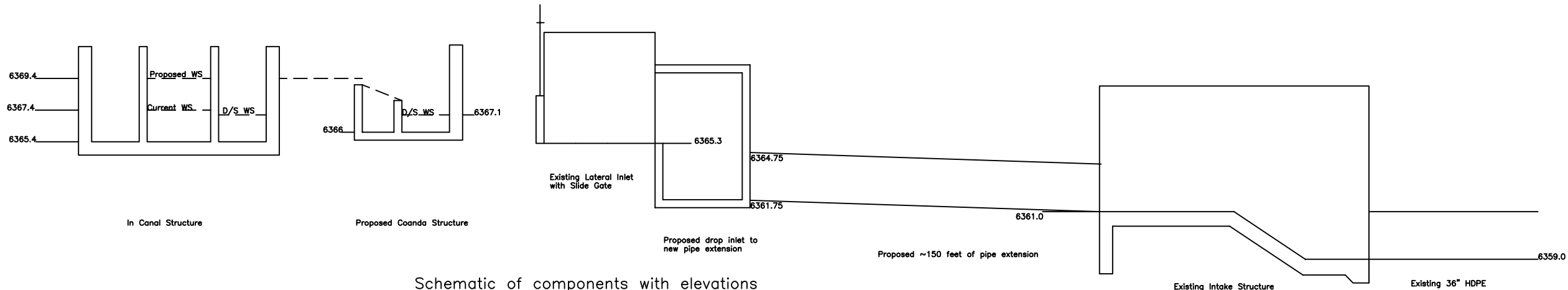
Location of Project Components

<p>Figure:</p> <p>2</p> <p>Of: 2</p>	<p>Date: Dec 12, 2011</p> <p>Job #: 11-127</p> <p>Drawn By: LAG</p>			No.	Rev. Date	Revision Description

APPENDIX B: CONCEPTUAL PLANS

1. May Pipeline Intake Coanda Screen
2. Lone Pine Pipeline Inlet Traveling Screen
3. Lone Pine Pipeline PRV Anti Cavitation Trim
4. Schematic of Flow Measurement Units

REDUCED PRINTS ARE ISSUED FOR CONVENIENCE ONLY -
CONSULT FULLSIZE DRAWINGS IN CASE OF CONFLICTS



N. T. S



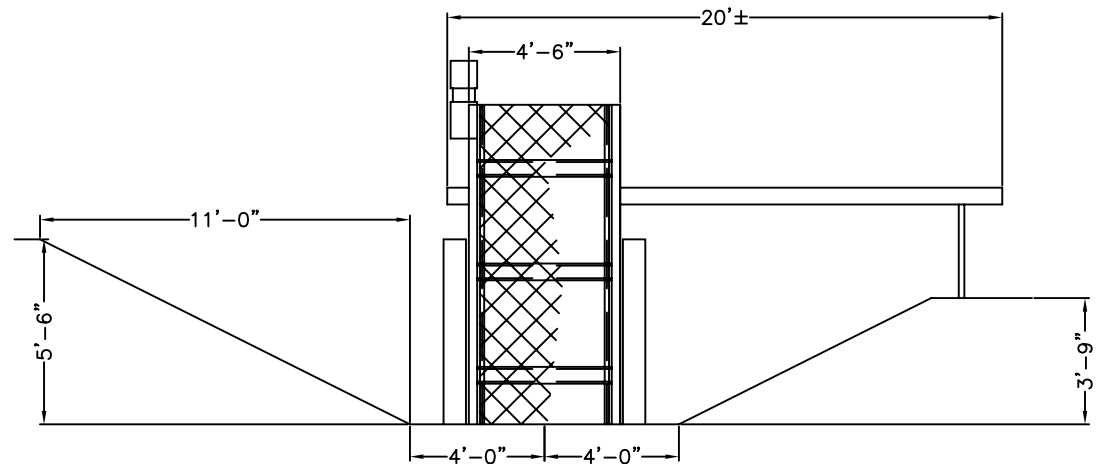
May Lateral Intake Coanda Screen

**Montezuma Valley
Irrigation Company**

[illegible]

Sheet: **1**

Of: **1**





Sheet: **1**

Of: **1**



— MODEL — **90-01KO**
(Full Internal Port)

Anti-Cavitation Pressure Reducing Valve



- **Virtually Cavitation Free Operation**
- **Sensitive and Accurate Pressure Control**
- **Easy Adjustment and Maintenance**
- **Tamper Resistant**
- **Optional Check Feature**
- **Fully Supported Frictionless Diaphragm**

The Cla-Val Model 90-01KO Anti-Cavitation Hytrol Pressure Reducing Valve automatically reduces a higher inlet pressure to a steady lower downstream pressure, regardless of changing flow rate and/or varying inlet pressure. This valve is an accurate, pilot-operated regulator capable of holding downstream pressure to a pre-determined limit. When downstream pressure exceeds the pressure setting of the control pilot, the main valve and pilot valve close drip-tight.

If a check feature is added, and a pressure reversal occurs, the downstream pressure is admitted in the main valve cover chamber, closing the valve to prevent return flow.

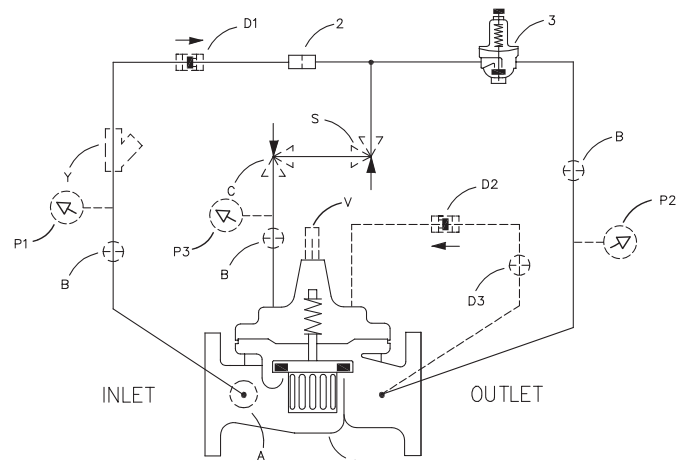
Schematic Diagram

Item	Description
1	Hytrol (100-01KO Main Valve)
2	X58 Restriction Fitting
3	CRD Pressure Reducing Control

Optional Features

Item	Description
A	X46A Flow Clean Strainer
B	CK2 (Isolation Valve)
C	CV Flow Control (Closing)*
D	Check Valves with Isolation Valve
P	X141 Pressure Gauge
S	CV Speed Control (Opening)
V	X101 Valve Position Indicator
Y	X43 "Y" Strainer

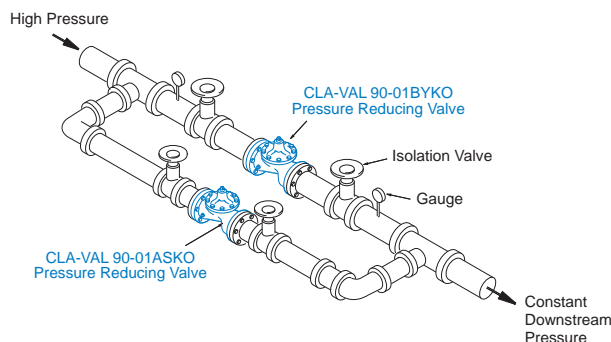
*The closing speed control (optional) on this valve should always be open at least three (3) turns off its seat.



The "D" check feature on a vertically installed 6" and larger valves must be horizontally installed.

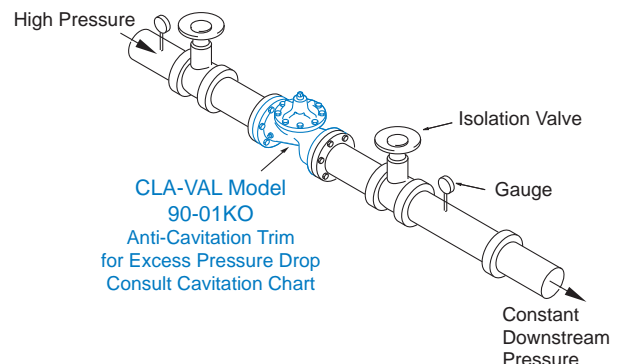
Typical Applications

Typical applications include pressure reducing valve station using Model 90-01BYKO and Model 90-01ASKO in parallel to handle wide range of flow rates. Larger Model 90-01BYKO valve meets requirements of peak loads and smaller Model 90-01ASKO handles low flows.



Cla-Val Model 90-01KO Pressure Reducing Valve with Anti-Cavitation Trim provides for optimum downstream pressure control while reducing noise and eliminating damage associated with cavitation.

See Cavitation Guide to determine if the valve is a candidate for the KO Anti-Cavitation Trim.



Specifications

Pattern	Globe	Angle	Grooved End
Size	1 1/4" - 36"	1 1/4" - 16" & 24"	1 1/4" - 8"

Operating Temp. Range

Fluids
-40° to 180° F



APPROVED
(4" - 24")

Model 100-01KO

Pressure Ratings (Recommended Maximum Pressure - psi)

Valve Body & Cover		Pressure Class				
		Flanged			Grooved	Threaded
Grade	Material	ANSI Standards*	150 Class	300 Class	300 Class	End† Details
ASTM A536	Ductile Iron	B16.42	250	400	400	400
ASTM A216-WCB	Cast Steel	B16.5	285	400	400	400
ASTM B62	Bronze	B16.24	225	400	400	400

Note: * ANSI standards are for flange dimensions only.

Flanged valves are available faced but not drilled.

† End Details machined to ANSI B2.1 specifications.

Valves for higher pressure are available; consult factory for details

Materials

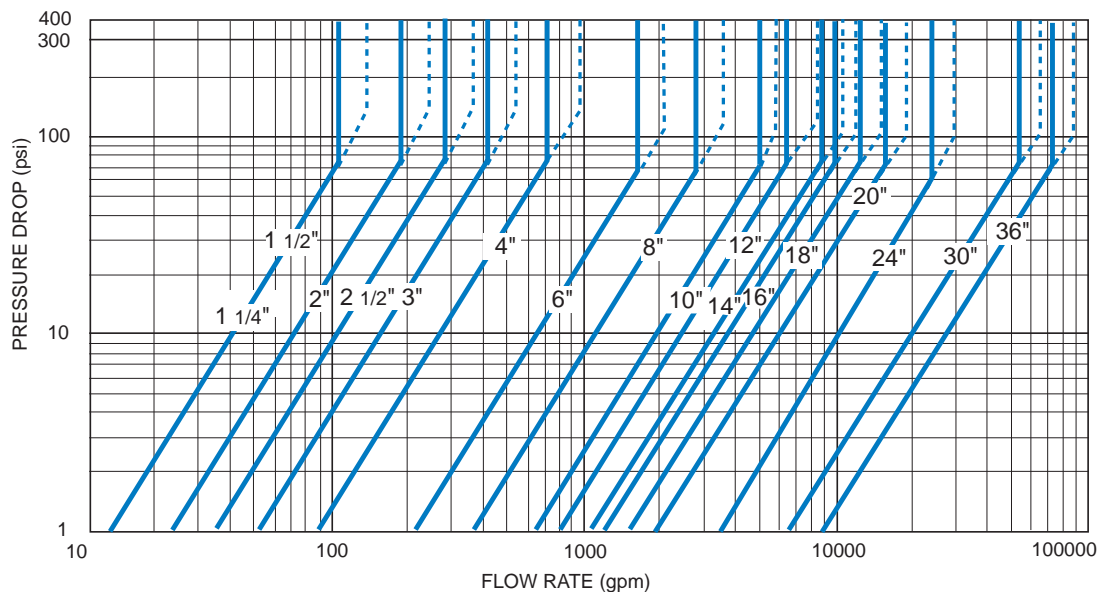
Component	Standard Material Combinations		
Body & Cover	Ductile Iron	Cast Steel	Bronze
100-01KO Available Sizes	1 1/4" - 36"	3" - 16"	3" - 16"
Disc Retainer & Diaphragm Washer	Cast Iron	Cast Steel	Bronze
Trim: Disc Guide, Seat & Cover Bearing	Bronze is Standard Stainless Steel is Optional		
Disc	Buna-N® Rubber		
Diaphragm	Nylon Reinforced Buna-N® Rubber		
Stem, Nut & Spring	Stainless Steel		

For material options not listed, consult factory.

Cla-Val manufactures valves in more than 50 different alloys.

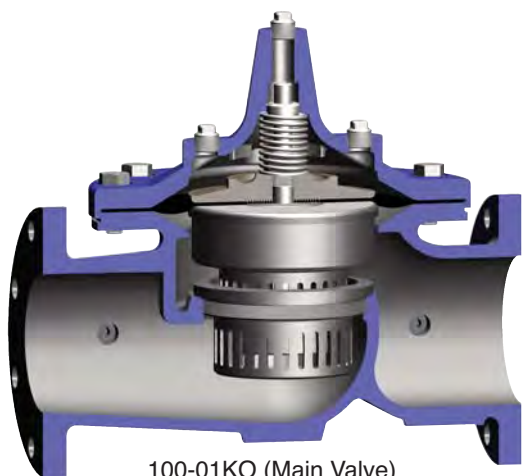
100G-01KO ANTI-CAVITATION VALVE CURVES

SOLID LINE IS FULL OPEN FLOW CURVES FOR 18 FT/SEC CONTINUOUS DUTY APPLICATIONS
DASHED LINE IS FULL OPEN FLOW CURVE FOR 25 FT/SEC INTERMITTENT DUTY APPLICATIONS



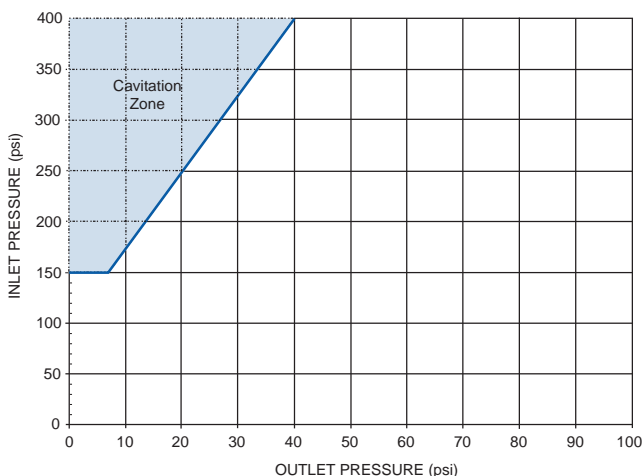
Notes: On Operating Differential

- For atmospheric discharge, the maximum inlet pressure cannot exceed 150 psi.
- For pressure differentials greater than 300 psi, the maximum flow velocity should not exceed 18 ft/sec.
- Flow velocities greater than 25 ft/sec are not recommended.
- Recommended minimum flow velocity is 1 ft/sec.
- Consult factory for conditions exceeding these recommendations.

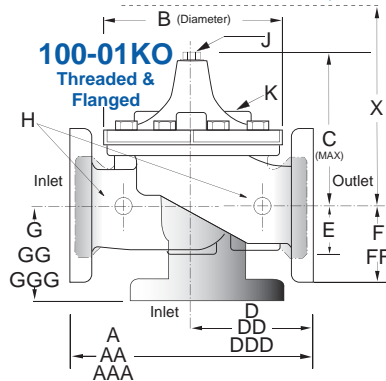


100-01KO (Main Valve)

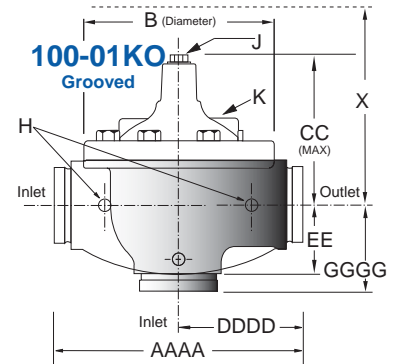
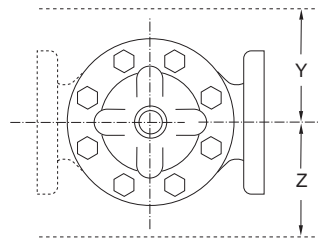
SELECTION GUIDELINE FOR KO ANTI-CAVITATION VALVES



Model 100-01KO Dimensions (Full Internal Port) (In Inches)



Note:
Consult Factory on 10", 12",
16" angle pattern



Valve Size (Inches)	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36
A Threaded	7.25	7.25	9.38	11.00	12.50	—	—	—	—	—	—	—	—	—	—	—	—
AA 150 ANSI	—	8.50	9.38	11.00	12.00	15.00	20.00	25.38	29.75	34.00	39.00	41.38	46.00	52.00	61.50	63.00	76.00
AAA 300 ANSI	—	9.00	10.00	11.62	13.25	15.62	21.00	26.38	31.12	35.50	40.50	43.50	47.64	53.62	63.24	64.50	76.00
AAAA Grooved End	—	8.50	9.00	11.00	12.50	15.00	20.00	25.38	—	—	—	—	—	—	—	—	—
B Dia.	5.62	5.62	6.62	8.00	9.12	11.50	15.75	20.00	23.62	28.00	32.75	35.50	41.50	45.00	53.16	56.00	66.00
C Max.	5.50	5.50	6.50	7.56	8.19	10.62	13.38	16.00	17.12	20.88	24.19	25.00	39.06	41.90	43.93	54.60	61.50
CC Max. Grooved End	—	4.75	5.75	6.88	7.25	9.31	12.12	14.62	—	—	—	—	—	—	—	—	—
D Threaded	3.25	3.25	4.75	5.50	6.25	—	—	—	—	—	—	—	—	—	—	—	—
DD 150 ANSI	—	4.00	4.75	5.50	6.00	7.50	10.00	12.69	14.88	17.00	19.50	20.81	—	—	30.75	—	—
DDD 300 ANSI	—	4.25	5.00	5.88	6.38	7.88	10.50	13.25	15.56	17.75	20.25	21.62	—	—	31.62	—	—
DDDD Grooved End	—	—	4.75	—	6.00	7.50	—	—	—	—	—	—	—	—	—	—	—
E	1.12	1.12	1.50	1.69	2.06	3.19	4.31	5.31	9.25	10.75	12.62	15.50	12.95	15.00	17.75	21.31	24.56
EE Grooved End	—	2.00	2.50	2.88	3.12	4.25	6.00	7.56	—	—	—	—	—	—	—	—	—
F 150 ANSI	—	2.50	3.00	3.50	3.75	4.50	5.50	6.75	8.00	9.50	10.50	11.75	15.00	16.50	19.25	22.50	25.60
FF 300 ANSI	—	3.06	3.25	3.75	4.13	5.00	6.25	7.50	8.75	10.25	11.50	12.75	15.00	16.50	19.25	24.00	25.60
G Threaded	1.88	1.88	3.25	4.00	4.50	—	—	—	—	—	—	—	—	—	—	—	—
GG 150 ANSI	—	4.00	3.25	4.00	4.00	5.00	6.00	8.00	8.62	13.75	14.88	15.69	—	—	22.06	—	—
GGG 300 ANSI	—	4.25	3.50	4.31	4.38	5.31	6.50	8.50	9.31	14.50	15.62	16.50	—	—	22.90	—	—
GGGG Grooved End	—	—	3.25	—	4.25	5.00	—	—	—	—	—	—	—	—	—	—	—
H NPT Body Tapping	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
J NPT Cover Center Plug	.25	.25	.50	.50	.50	.75	.75	1	1	1.25	1.5	2	1.5	1.5	1.5	2	2
K NPT Cover Tapping	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
Stem Travel	0.4	0.4	0.6	0.7	0.8	1.1	1.7	2.3	2.8	3.4	4.0	4.5	5.1	5.63	6.75	7.5	8.5
Approx. Ship Wt. Lbs.	15	15	35	50	70	140	285	500	780	1165	1600	2265	2982	3900	6200	7703	11720
X Pilot System	11	11	13	14	15	17	29	31	33	36	40	40	43	47	68	79	85
Y Pilot System	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	40	45
Z Pilot System	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	42	47

Valve Size (mm)	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	900
A Threaded	184	184	238	279	318	—	—	—	—	—	—	—	—	—	—	—	—
AA 150 ANSI	—	216	238	279	305	381	508	645	756	864	991	1051	1168	1321	1562	1600	1930
AAA 300 ANSI	—	229	254	295	337	397	533	670	790	902	1029	1105	1210	1362	1606	1638	1930
AAAA Grooved End	—	216	228	279	318	381	508	645	—	—	—	—	—	—	—	—	—
B Dia.	143	143	168	203	232	292	400	508	600	711	832	902	1054	1143	1350	1422	1676
C Max.	140	140	165	192	208	270	340	406	435	530	614	635	992	1064	1116	1387	1562
CC Max. Grooved End	120	120	146	175	184	236	308	371	—	—	—	—	—	—	—	—	—
D Threaded	83	83	121	140	159	—	—	—	—	—	—	—	—	—	—	—	—
DD 150 ANSI	—	102	121	140	152	191	254	322	378	432	495	528	—	—	781	—	—
DDD 300 ANSI	—	108	127	149	162	200	267	337	395	451	514	549	—	—	803	—	—
DDDD Grooved End	—	—	121	—	152	191	—	—	—	—	—	—	—	—	—	—	—
E	29	29	38	43	52	81	110	135	235	273	321	394	329	381	451	541	624
EE Grooved End	—	52	64	73	79	108	152	192	—	—	—	—	—	—	—	—	—
F 150 ANSI	—	64	76	89	95	114	140	171	203	241	267	298	381	419	489	572	650
FF 300 ANSI	—	78	83	95	105	127	159	191	222	260	292	324	381	419	489	610	650
G Threaded	48	48	83	102	114	—	—	—	—	—	—	—	—	—	—	—	—
GG 150 ANSI	—	102	83	102	102	127	152	203	219	349	378	399	—	—	560	—	—
GGG 300 ANSI	—	102	89	110	111	135	165	216	236	368	397	419	—	—	582	—	—
GGGG Grooved End	—	—	83	—	108	127	—	—	—	—	—	—	—	—	—	—	—
H NPT Body Tapping	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
J NPT Cover Center Plug	.25	.25	.50	.50	.50	.75	.75	1	1	1.25	1.5	2	1.5	1.5	1.5	2	2
K NPT Cover Tapping	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	2
Stem Travel	10-32	10-32	10-32	10-32	1/4-28	1/4-28	3/8-24	1/2-24	5/8-24	3/4-24	1-24	1-24	1-20	1-16	1-16	1-16	1-16
Approx. Ship Wt. Kgs.	10	10	15	18	20	28	43	58	71	86	102	114	130	143	171	190	216
X Pilot System	7	7	16	23	32	64	129	227	354	528	726	1027	1353	1769	2812	3494	5316
Y Pilot System	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	40	45
Z Pilot System	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	42	47

Cla-Val Control Valves with KO ANTI-CAVITATION Trim operate with maximum efficiency when mounted in horizontal piping with the main valve cover Up. We recommend isolation valves be installed on inlet and outlet for maintenance. Adequate space above and around the valve for service personnel should be considered essential. A regular maintenance program should be established based on the specific application data. However, we recommend a thorough inspection be done at least once a year. Consult factory for specific recommendations.

90-01KO Valve Selection	100-01KO Pattern: Globe (G), Angle (A), End Connections: Threaded (T), Grooved (GR), Flanged (F) Indicate Available Sizes																	
	Inches	1¼	1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36
	mm	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	900
Basic Valve 100-01KO	Pattern	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G, A	G	G	G, A	G	G
	End Detail	T	T, F, Gr*	T, F, Gr	T, F, Gr*	T, F, Gr	F, Gr	F, Gr*	F, Gr*	F	F	F	F	F	F	F	F	F
Suggested Flow (gpm)	Max. Continuous	84	115	190	270	410	710	1620	2810	4420	6280	7590	9920	12550	14900	22600	37700	52450
	Max. Intermittent	120	160	260	370	580	990	2250	3900	6150	8720	10540	13700	17500	21700	31300	48000	62500
	Min. Continuous	10	10	15	20	30	50	115	200	300	400	500	650	560	1073	1577	2650	3150
Suggested Flow (Liters/Sec)	Max. Continuous	5.3	7.3	12	17	26	45	102	177	279	397	479	694	792	940	1427	2379	3309
	Max. Intermittent	7.6	10	16	23	37	62	142	246	387	549	664	863	1104	1369	1972	3028	3940
	Min. Continuous	.6	.6	.9	1.3	1.9	3.2	7.2	13	19	25	32	41	41	57	110	132	180
100-01KO Series is the full internal port Hytrol.																		
For Lower Flows Consult Factory																		
*Globe Grooved Only																		

Functional Data

Valve Size		Inches	1¼	1½	2	2½	3	4	6	8	10	12	14	16	18	20	24	30	36
		mm.	32	40	50	65	80	100	150	200	250	300	350	400	450	500	600	750	900
C _V Factor	Globe Pattern	Gal./Min. (gpm.)	14	14	25	37	52	90	218	362	660	810	1100	1200	1550	1950	3900	6100	9150
		Litres/Sec. (l/s.)	3.4	3.4	6.0	8.9	12.5	21.6	52	87	159	194	264	288	360	469	938	1466	2199
	Angle Pattern	Gal./Min. (gpm.)	15	15	26	39	55	95	232	388	479	790	1075	1175	—	—	—	—	—
		Litres/Sec. (l/s.)	3.6	3.6	6.2	9.4	13.2	22.8	56	93	115	190	258	282	—	—	—	—	—
Equivalent Length of Pipe	Globe Pattern	Feet (ft.)	196	196	237	277	416	572	858	1315	2444	2118	1937	3022	3537	4199	4532	3897	3954
		Meters (m.)	60	60	72	84	127	174	262	401	745	646	590	921	1078	1280	1381	1188	1205
	Angle Pattern	Feet (ft.)	171	171	219	250	372	514	757	1145	2133	2226	2021	3152	—	—	—	—	—
		Meters (m.)	52	52	67	76	113	157	231	349	650	678	616	961	—	—	—	—	—
K Factor	Globe Pattern	30.6	30.6	26.1	24.3	29.3	29.0	25.5	27.7	41.0	27.7	22.8	31.4	30.2	29.5	28.9	17.6	15.1	—
	Angle Pattern	26.7	26.7	24.1	21.8	26.2	26.0	22.5	24.1	35.8	29.1	23.8	32.8	—	—	—	—	—	—
Liquid Displaced from Cover Chamber When Valve Opens	U.S. Gal.	0.2	0.2	.03	.04	.08	.17	.53	1.26	2.5	4.0	6.5	9.6	11	12	29	65	90	—
	Litres	0.8	0.8	.12	.16	.30	.64	2.0	4.8	9.5	15.1	25.6	36.2	41.6	45.4	110	246	340	—

For assistance in selecting appropriate valve options or valves manufactured with special design requirements, please contact our Regional Sales Office or Factory.

C_V Factor

Formulas for computing C_V Factor, Flow (Q) and Pressure Drop (ΔP):

$$C_V = \frac{Q}{\sqrt{\Delta P}} \quad Q = C_V \sqrt{\Delta P} \quad \Delta P = \left(\frac{Q}{C_V} \right)^2$$

K Factor (Resistance Coefficient)

The Value of K is calculated from the formula: $K = \frac{894d^4}{C_V^2}$ (U.S. system units)

Equivalent Length of Pipe

Equivalent lengths of pipe (L) are determined from the formula: $L = \frac{Kd}{12f}$ (U.S. system units)

Fluid Velocity

Fluid velocity can be calculated from the following formula: $V = \frac{.4085 Q}{d^2}$ (U.S. system units)

Where:

C_V = U.S. (gpm) @ 1 psi differential at 60° F water
or

= (l/s) @ 1 bar (14.5 PSIG) differential at 15° C water

d = inside pipe diameter of Schedule 40 Steel Pipe (inches)

f = friction factor for clean, new Schedule 40 pipe (dimensionless) (from Cameron Hydraulic Data, 18th Edition, P 3-119)

K = Resistance Coefficient (calculated)

L = Equivalent Length of Pipe (feet)

Q = Flow Rate in U.S. (gpm) or (l/s)

V = Fluid Velocity (feet per second) or (meters per second)

ΔP = Pressure Drop in (psi) or (bar)

Pilot System Specifications

Adjustment Ranges

2	to	30 psi
15	to	75 psi
20	to	105 psi
30	to	300 psi*

*Supplied unless otherwise specified
Other ranges available, please consult factory

Temperature Range

Water: to 180°F

Materials

Standard Pilot System Materials

Pilot Control: Bronze ASTM B62
Trim: Stainless Steel Type 303
Rubber: Buna-N® Synthetic Rubber

Optional Pilot System Materials

Pilot Systems are available with optional Aluminum, Stainless Steel or Monel materials.

Note: Available with remote sensing control.

When Ordering, Please Specify

1. Catalog No. 90-01KO
2. Valve Size
3. Pattern - Globe or Angle
4. Pressure Class
5. Threaded, Flanged or Grooved End
6. Trim Material
7. Adjustment Range
8. Desired Options
9. When Vertically Installed

APPENDIX C: DETAILED PROJECT COSTS

1. May Pipeline Intake Cost Estimate
2. Lone Pine Pipeline Inlet Cost Estimate
3. Lone Pine Pipeline PRV Cost Estimate
4. Flow Measurement Unit Cost Estimate

Engineers Opinion of Probable Construction Cost



1499 W. 120th Ave. Suite 200
 Denver, CO 80234
 Phone: (303) 452-6611
 Fax: (303) 452-2759

MVIC - May Pipeline Inlet Modifications

Job No. : 11-127

By: LAG

Date: 12/13/2011

Client: Montezuma Valley
 Irrigation Company

Description of Work	Item	Units	Quantity	Unit Cost	Total Cost
Coanda Intake Screen	Coanda Screen	SF	60	\$ 300	\$ 18,000
	Installation of Screen	LS	1	\$ 2,500	\$ 2,500
	New reinforced concrete for Coanda Screen	CY	27	\$ 750	\$ 20,250
	Excavation	CY	5	\$ 25	\$ 125
	Backfill - with material on site	CY	5	\$ 20	\$ 100
	Extension of Pipeline 36"	LF	150	\$ 72	\$ 10,800
	Backfill of pipeline - with material on site	CY	1000	\$ 15	\$ 15,000
	New reinforced concrete for pipe inlets	CY	5	\$ 750	\$ 3,750
	<i>Construction Subtotal</i>				\$ 70,525
	Mobilization	%		6%	\$ 4,300
	Contingency/Missing Items	%		15%	\$ 10,975
	Construction Total				\$ 85,800
	Engineering	%		10%	\$ 8,600
	Construction Observation	%		3%	\$ 2,600
Total					\$ 97,000

Engineers Opinion of Probable Construction Cost



1499 W. 120th Ave. Suite
200
Denver, CO 80234
Phone: (303) 452-6611
Fax: (303) 452-2759

MVIC - Lone Pine Inlet Modifications

Job No. : 11-127

By: LAG

Date: 12/12/2011

Client: Montezuma Valley
Irrigation Company

Description of Work	Item	Units	Quantity	Unit Cost	Total Cost
Traveling Water Screen	IWS - Screen, motor, conveyor and all assoc. equip	LS	1	\$ 42,650	\$ 42,650
	Installation of water screen	LS	1	\$ 7,000	\$ 7,000
	Power line extension	LS	1	\$ 27,000	\$ 27,000
	Trenching for power line	LF	3,000	\$ 2	\$ 6,000
	New reinforced concrete wingwalls	CY	18	\$ 750	\$ 13,500
	Excavation	CY	40	\$ 25	\$ 1,000
	Backfill - with material on site	CY	30	\$ 20	\$ 600
	<i>Construction Subtotal</i>				\$ 97,750
	Mobilization	%		6%	\$ 5,900
	Contingency/Missing Items	%		15%	\$ 16,850
	Construction Total				\$ 120,500
	Engineering	%		6%	\$ 7,300
	Construction Observation	%		3%	\$ 3,700
	IWS Installation Support	LS		\$ 3,000.00	\$ 3,000
Total					\$ 134,500

Engineers Opinion of Probable Construction Cost



1499 W. 120th Ave. Suite
200
Denver, CO 80234
Phone: (303) 452-6611
Fax: (303) 452-2759

MVIC - Lone Pine Pipeline Pressure Reducing Stations

Alternative #1

Job No. : 11-127

By: LAG

Date: 12/13/2011

Client: Montezuma Valley
Irrigation Company

Description of Work	Item	Units	Quantity	Unit Cost	Total Cost
Anti-Cavitation Trim	Anti Cavitation Trim installed in PRV Station #2	LS	1	\$ 22,650	\$ 22,650
	Installation of Valves - Labor	HR	20	\$ 50	\$ 1,000
	Installation of Valves - Crane	HR	20	\$ 100	\$ 2,000
	<i>Construction Subtotal</i>				\$ 25,650
	Contingency/Missing Items			10%	\$ 2,650
					\$ -
	Construction Total				\$ 28,300
	Engineering	%		6%	\$ 1,700
	Installation Assistance from isiWEST	LS		\$ 3,000.00	\$ 3,000
Total					\$ 33,000

Engineers Opinion of Probable Construction Cost



1499 W. 120th Ave. Suite
200
Denver, CO 80234
Phone: (303) 452-6611
Fax: (303) 452-2759

MVIC -May Lateral Flow Measurement Improvements

Job No. : 11-127

By: LAG

Date: 1/26/2012

Client: Montezuma Valley
Irrigation Company

Description of Work	Item	Units	Quantity	Unit Cost	Total Cost
New Pressure Station	Solar Packs	EA	75	\$ 1,148	\$ 86,063
	Sales Tax	EA	75	\$ 59	\$ 4,425
	Shipping	EA	75	\$ 25	\$ 1,875
	<i>Materials Subtotal</i>				\$ 93,000
	Installation by MVI Employees	EA	75	200	\$ 15,000
	Total				\$ 108,000

APPENDIX D: FINANCIAL STATEMENTS

Montezuma Valley Irrigation Company
Statement of Financial Position
December 31, 2009 and December 31, 2008

	Assets					
	Unrestricted		Temporarily Restricted		Total	
	<u>2009</u>	<u>2008</u>	<u>2009</u>	<u>2008</u>	<u>2009</u>	<u>2008</u>
Current assets:						
Cash and equivalents	\$ 463,443	\$ 1,169,434	\$ 78,782	\$ -	\$ 542,225	\$ 1,169,434
Accounts receivable, service	4,735	16,566	-	-	4,735	16,566
Grant receivable	-	225,450	-	-	-	225,450
Prepaid expense	25,812	23,572	-	-	25,812	23,572
Total current assets	493,990	1,435,022	78,782	-	572,772	1,435,022
Other assets						
Long term investments (at cost)	699,279	136,405	863,595	1,363,595	1,562,874	1,500,000
Property and equipment:						
Irrigation and pipeline	3,920,076	3,642,936	-	-	3,920,076	3,642,936
Equipment	1,559,651	1,139,813	-	-	1,559,651	1,139,813
Land	5,340	5,340	-	-	5,340	5,340
Buildings	237,966	152,250	-	-	237,966	152,250
Irrigation and pipeline facilities in process of construction, cost to date	4,406,322	2,020,081	-	-	4,406,322	2,020,081
	<u>10,129,355</u>	<u>6,960,420</u>	<u>-</u>	<u>-</u>	<u>10,129,355</u>	<u>6,960,420</u>
Accumulated depreciation	(2,178,806)	(1,956,200)	-	-	(2,178,806)	(1,956,200)
Net property and equipment	7,950,549	5,004,220	-	-	7,950,549	5,004,220
Net asset receivable (payable)	129,798	-	(129,798)	-	-	-
Total assets	\$ 9,273,616	\$ 6,575,647	\$ 812,579	\$ 1,363,595	\$ 10,086,195	\$ 7,939,242

LIABILITIES AND NET ASSETS

Current liabilities:						
Accounts payable	\$ 56,363	\$ 138,358	-	-	\$ 56,363	\$ 138,358
Accrued expense and payroll liabilities	183,468	15,997	-	-	183,468	15,997
Accrued interest payable	78,397	24,939	-	-	78,397	24,939
Total current liabilities	318,228	179,294	-	-	318,228	179,294
Long-term liabilities:						
Note payable	2,804,028	1,905,725	-	-	2,804,028	1,905,725
Total liabilities	3,122,256	2,085,019	-	-	3,122,256	2,085,019
Net Assets:						
Unrestricted	6,151,360	4,490,628	-	-	6,151,360	4,490,628
Temporarily restricted	-	-	812,579	1,363,595	812,579	1,363,595
Total net assets	6,151,360	4,490,628	812,579	1,363,595	6,963,939	5,854,223
Total liabilities and net assets	\$ 9,273,616	\$ 6,575,647	\$ 812,579	\$ 1,363,595	\$ 10,086,195	\$ 7,939,242

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Statement of Activities
For the Years Ended December 31, 2009 and December 31, 2008

	Unrestricted		Temporarily Restricted		Total	
	2009	2008	2009	2008	2009	2008
Revenue and other support						
Charges for service	\$ 890,003	\$ 760,791	\$ -	\$ -	\$ 890,003	\$ 760,791
Grants	61,227	478,881	-	-	61,227	478,881
Bureau of Reclamation Cooperative Agreement	-	-	1,545,755	-	1,545,755	-
Lease Ute Mountain	-	92,227	-	-	-	92,227
Investment income	22,065	24,651	-	-	22,065	24,651
Transfer fees, finance charges and other	37,656	23,490	-	-	37,656	23,490
Unrealized gains securities	3,964	-	-	-	3,964	-
Total	1,014,915	1,380,040	1,545,755		2,560,670	1,380,040
Net assets released from restrictions	2,096,771	256,341	(2,096,771)	(256,341)	-	-
Total revenue and other support	3,111,686	1,636,381	(551,016)	(256,341)	2,560,670	1,380,040
Expenses						
Wages and salaries	343,736	243,993	-	-	343,736	243,993
Payroll tax and benefits	81,607	66,580	-	-	81,607	66,580
Project water obligation	63,200	63,200	-	-	63,200	63,200
Project water account charge	14,210	14,210	-	-	14,210	14,210
Project water operation maintenance and replacement	20,791	30,820	-	-	20,791	30,820
Non-project service charges	12,104	7,818	-	-	12,104	7,818
TH Canal expense	43,159	45,657	-	-	43,159	45,657
Auto and truck maintenance and repair	21,082	30,281	-	-	21,082	30,281
Conferences and meetings	6,387	16,885	-	-	6,387	16,885
Copier lease and maintenance	6,978	6,395	-	-	6,978	6,395
Depreciation	214,860	155,940	-	-	214,860	155,940
Director fees	40,200	17,525	-	-	40,200	17,525
Fuel	40,278	28,388	-	-	40,278	28,388
Headgates and pipe	85,007	41,458	-	-	85,007	41,458
Insurance	34,076	33,346	-	-	34,076	33,346
Licenses and permits	7,635	14,669	-	-	7,635	14,669
Meetings	1,231	-	-	-	1,231	-
Office and other administrative	21,481	29,458	-	-	21,481	29,458
Postage	3,917	3,748	-	-	3,917	3,748
Printing	3,491	3,529	-	-	3,491	3,529
Professional fees	307,231	57,294	-	-	307,231	57,294
Programs and sponsorships	3,671	400	-	-	3,671	400
Repairs, maintenance and supplies	34,861	6,677	-	-	34,861	6,677
Taxes, property	5,102	4,231	-	-	5,102	4,231
Telephone	9,546	12,406	-	-	9,546	12,406
Uniforms, safety equipment and other work crew expense	5,399	3,177	-	-	5,399	3,177
Utilities	10,363	13,978	-	-	10,363	13,978
Web site	333	-	-	-	333	-
Workers Compensation Insurance	9,018	10,203	-	-	9,018	10,203
Total expenses	1,450,954	962,266	-	-	1,450,954	962,266
Change in net assets	1,660,732	674,115	(551,016)	(256,341)	1,109,716	417,774
Net assets at beginning of year	4,490,628	3,816,513	1,363,595	1,619,936	5,854,223	5,436,449
Net assets at end of year	<u>\$ 6,151,360</u>	<u>\$ 4,490,628</u>	<u>\$ 812,579</u>	<u>\$ 1,363,595</u>	<u>\$ 6,963,939</u>	<u>\$ 5,854,223</u>

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Statement of Cash Flows
For the Years Ended December 31, 2009 and December 31, 2008

	<u>2009</u>	<u>2008</u>
Reconciliation from operating income to net cash provided by operating activities		
Change in net assets	\$ 1,109,716	\$ 417,774
Adjustments to reconcile changes in net assets to net cash used in operating activities		
Unrealized gains securities	(3,964)	-
Depreciation expense	214,860	155,940
Decrease in customer and grants receivable	237,281	(240,542)
(Increase) decrease in prepaid expenses	(2,240)	1,469
(Decrease) increase in accounts payable	(81,995)	132,296
Increase in accrued expense	220,929	24,785
Net cash provided by operating activities	1,694,587	491,722
Investment activities		
Purchases of property and equipment	(3,161,188)	(2,318,761)
Purchases of securities	(74,445)	-
Sale of securities	15,534	650,055
Net cash used by investment activities	(3,220,099)	(1,668,706)
Financing activities		
Borrowing on note payable	898,303	1,905,725
Net cash provided by financing activities	898,303	1,905,725
Cash and equivalents December 31, 2008	1,169,434	440,693
Cash and equivalents December 31, 2009	<u>\$ 542,225</u>	<u>\$ 1,169,434</u>

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Statements of Financial Position
December 31, 2010 and December 31, 2009

	Assets					
	Unrestricted		Temporarily Restricted		Total	
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>
Current assets:						
Cash and equivalents	\$ 37,661	\$ 463,443	\$ -	\$ 78,782	\$ 37,661	\$ 542,225
Accounts receivable, service	22,575	4,735	-	-	22,575	4,735
Prepaid expense	25,812	25,812	-	-	25,812	25,812
Total current assets	86,048	493,990	-	78,782	86,048	572,772
Other assets						
Long term investments (at cost)	740,780	699,279	759,220	863,595	1,500,000	1,500,000
Property and equipment:						
Irrigation and pipeline	6,882,386	3,920,076	-	-	6,882,386	3,920,076
Equipment	1,555,830	1,559,651	-	-	1,555,830	1,559,651
Land	5,340	5,340	-	-	5,340	5,340
Buildings	241,368	237,966	-	-	241,368	237,966
Irrigation and pipeline facilities in process of construction, cost to date	2,952,892	4,406,322	-	-	2,952,892	4,406,322
	<u>11,637,816</u>	<u>10,129,355</u>	<u>-</u>	<u>-</u>	<u>11,637,816</u>	<u>10,129,355</u>
Accumulated depreciation	(2,526,201)	(2,178,806)	-	-	(2,526,201)	(2,178,806)
Net property and equipment	9,111,615	7,950,549	-	-	9,111,615	7,950,549
Net asset receivable (payable)	-	129,798	(129,798)	-	-	-
Total assets	\$ 9,938,443	\$ 9,273,616	\$ 759,220	\$ 812,579	\$ 10,697,663	\$ 10,086,195

Liabilities and Net Assets

Current liabilities:						
Accounts payable	\$ 109,705	\$ 56,363	\$ -	\$ -	\$ 109,705	\$ 56,363
Accrued expense and payroll liabilities	35,593	183,468	-	-	35,593	183,468
Short term note payable	100,058	-	-	-	100,058	-
Accrued interest payable	144,769	78,397	-	-	144,769	78,397
Total current liabilities	390,125	318,228	-	-	390,125	318,228
Long-term liabilities:						
Note payable	2,949,895	2,804,028	-	-	2,949,895	2,804,028
Total liabilities	3,340,020	3,122,256	-	-	3,340,020	3,122,256
Net Assets:						
Unrestricted	6,598,423	6,151,360	-	-	6,598,423	6,151,360
Temporarily restricted	-	-	759,220	812,579	759,220	812,579
Total net assets	6,598,423	6,151,360	759,220	812,579	7,357,643	6,963,939
Total liabilities and net assets	\$ 9,938,443	\$ 9,273,616	\$ 759,220	\$ 812,579	\$ 10,697,663	\$ 10,086,195

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Statements of Activities
For the Years Ended December 31, 2010 and December 31, 2009

	Unrestricted		Temporarily Restricted		Total	
	2010	2009	2010	2009	2010	2009
Revenue and other support						
Charges for service	\$ 987,761	\$ 890,003	\$ -	\$ -	\$ 987,761	\$ 890,003
Grants	13,892	61,227	-	-	13,892	61,227
Bureau of Reclamation Cooperative Agreement	-	-	463,891	1,545,755	463,891	1,545,755
Investment income	6,011	22,065	-	-	6,011	22,065
Transfer fees, finance charges and other	44,878	37,656	-	-	44,878	37,656
Gain on asset sales	11,329	3,964	-	-	11,329	3,964
Total	1,063,871	1,014,915	463,891	1,545,755	1,527,762	2,560,670
Net assets released from restrictions	517,250	2,096,771	(517,250)	(2,096,771)	-	-
Total revenue and other support	1,581,121	3,111,686	(53,359)	(551,016)	1,527,762	2,560,670
Expenses						
Wages and salaries	406,948	441,268	-	-	406,948	441,268
Payroll tax and benefits	129,142	121,196	-	-	129,142	121,196
Project water obligation	63,200	63,200	-	-	63,200	63,200
Project water account charge	14,210	14,210	-	-	14,210	14,210
Project water operation maintenance and replacement	22,955	20,791	-	-	22,955	20,791
Non-project service charges	11,435	12,104	-	-	11,435	12,104
TH Canal expense	43,159	43,159	-	-	43,159	43,159
Auto and truck maintenance and repair	16,412	21,082	-	-	16,412	21,082
Conferences and meetings	7,527	6,387	-	-	7,527	6,387
Copier lease and maintenance	7,047	6,978	-	-	7,047	6,978
Depreciation	374,247	214,860	-	-	374,247	214,860
Director fees	40,200	40,200	-	-	40,200	40,200
Fuel	37,937	40,278	-	-	37,937	40,278
Headgates and pipe	113,992	147,006	-	-	113,992	147,006
Insurance	38,301	34,076	-	-	38,301	34,076
Interest expense	49,776	-	-	-	49,776	-
Licenses and permits	9,795	7,635	-	-	9,795	7,635
Meetings	1,789	1,231	-	-	1,789	1,231
Office and other administrative	35,677	28,758	-	-	35,677	28,758
Postage	4,771	3,917	-	-	4,771	3,917
Printing	1,007	3,491	-	-	1,007	3,491
Professional fees	435,597	307,231	-	-	435,597	307,231
Programs and sponsorships	-	3,671	-	-	-	3,671
Repairs, maintenance and supplies	30,053	47,613	-	-	30,053	47,613
Taxes, property	4,076	5,102	-	-	4,076	5,102
Telephone	13,834	9,546	-	-	13,834	9,546
Uniforms, safety equipment and other work crew expense	3,981	5,399	-	-	3,981	5,399
Utilities	13,249	10,363	-	-	13,249	10,363
Web site	-	333	-	-	-	333
Workers Compensation Insurance	14,413	9,018	-	-	14,413	9,018
Construction in process wages, and benefits	(193,870)	(137,122)	-	-	(193,870)	(137,122)
Construction in process equipment usage	(573,586)	(74,753)	-	-	(573,586)	(74,753)
Construction in process general and administrative	(43,216)	(7,274)	-	-	(43,216)	(7,274)
Total expenses	1,134,058	1,450,954	-	-	1,134,058	1,450,954
Change in net assets	447,063	1,660,732	(53,359)	(551,016)	393,704	1,109,716
Net assets at beginning of year	6,151,360	4,490,628	812,579	1,363,595	6,963,949	5,854,223
Net assets at end of year	\$ 6,598,423	\$ 6,151,360	\$ 759,220	\$ 812,579	\$ 7,357,643	\$ 6,963,939

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Statements of Cash Flows
For the Years Ended December 31, 2010 and December 31, 2009

	<u>2010</u>	<u>2009</u>
Reconciliation from operating income to net cash provided by operating activities		
Change in net assets	\$ 393,704	\$ 1,109,716
Adjustments to reconcile changes in net assets to net cash used in operating activities		
Unrealized gains securities	-	(3,964)
Depreciation expense	374,247	214,860
Decrease (increase) in customer and grants receivable	(17,840)	237,281
(Increase) decrease in prepaid expenses	-	(2,240)
(Decrease) increase in accounts payable	53,342	(81,995)
(Decrease) increase in accrued expense	<u>(81,503)</u>	<u>220,929</u>
Net cash provided by operating activities	721,950	1,694,587
Investment activities		
Purchases of property and equipment	(1,535,313)	(3,161,188)
Purchases of securities	-	(74,445)
Sale of securities	<u>62,874</u>	<u>15,534</u>
Net cash used by investment activities	(1,472,439)	(3,220,099)
Financing activities		
Borrowing on note payable	<u>245,925</u>	<u>898,303</u>
Net cash provided by financing activities	245,925	898,303
Cash and equivalents December 31, 2009	<u>542,225</u>	<u>1,169,434</u>
Cash and equivalents December 31, 2010	<u>\$ 37,661</u>	<u>\$ 542,225</u>

The accompanying notes are an integral part of these financial statements

Montezuma Valley Irrigation Company
Profit & Loss Budget vs. Actual
January through December 2011

2012 BUDGET

	Stock Assessment	20.50		27.50
	Account Fee	200.00		275.00
		2011 Budget	2011 Actual	2012 Budget
<u>Ordinary Income/Expense</u>				
<u>Income</u>				
4100 · Assessments - Current	682,322	678,734.50		915,310
4150 · Maintenance - Current	280,400	279,885.00		385,000
4175 · Headgates, Pipe & Etc.	110,000	34,626.35		
4200 · Stock Transfer Fees		5,550.00		
4220 · Shareholder Lease Fees		4,425.00		
4240 · TH OM&R Reimbursements	100,000	58,546.91		50,000
4300 · Interest - Banks		28.22		
4304 · Finance Charges	1,900	5,754.65		5,000
4305 · Fees Income	10,000	11,280.00		10,000
4320 · Dividends	3,846	0.00		
4400 · Certified/Restricted Mail Inc	280	542.18		
4500 · Class B Water		25,177.00		5,000
4705 · Public Auction Sale	600	0.00		
4999 · Uncategorized Income	135,010	13,217.07		
Total Income	1,324,358	1,117,766.88		1,370,310
<u>Expense</u>				
5000 · Salary & Wages Expense				
5002 · Wages - Ditchriders		19,364.91		150,667
5003 · Wages - Maintenance		12,000.60		87,747
5004 · Wages - Administration		20,783.60		160,674
5015 · Wages-Maintenance & Ditchriders	242,500	149,009.14		
5010 · Wages -Office & General Manager	155,000	150,128.37		
5000 · Salary & Wages Expense - Other		20,498.70		
Total 5000 · Salary & Wages Expense	397,500	371,785.32		399,088
5050 · Payroll Tax & Benefit Expense				
5055 · FICA and Medicare	30,000	26,716.09		30,530
5060 · FUTA	925	752.04		900
5065 · SUTA	3,325	6,429.20		6,500
5070 · Company IRA Contribution	5,000	7,326.45		11,973
5075 · Company Health Insurance Exp	128,600	71,582.91		60,000
Company Dental and Vision Reimbursement				7,000
5080 · Workmans Compensation	16,000	14,742.00		15,000
5081 · Wages Clearing		(60,379.10)		
5090 · Company Flex Spending Contribution		72.00		
5050 · Payroll Tax & Benefit Expense - Other		12,178.53		
Total 5050 · Payroll Tax & Benefit Expense	183,850	79,420.12		131,903
5100 · Heavy Equipment				
5106 · Machinery Clearing		(118,005.23)		
5100 · Heavy Equipment - Other	16,000	11,176.12		
Total 5100 · Heavy Equipment	16,000	(106,829.11)		15,000
5125 · Vehicle Expense	34,000	19,875.32		15,000
5200 · Headgates, Pipe Etc. Expense	118,000	41,188.75		130,000
5250 · Fuel & Oil Expense				
5252 · Unleaded		36,166.31		40,000
5253 · Diesel		22,762.85		20,000
5256 · Motor Oil (synthetic)		1,349.73		
5250 · Fuel & Oil Expense - Other	24,981	0.00		
Total 5250 · Fuel & Oil Expense	24,981	60,278.89		60,000
5500 · Shop Supplies & Repairs				

Montezuma Valley Irrigation Company
Profit & Loss Budget vs. Actual
January through December 2011

2012 BUDGET

	Stock Assessment	20.50		27.50
	Account Fee	200.00		275.00
	2011 Budget		2011 Actual	2012 Budget
5508 · Rental Equipment			4,978.46	
5500 · Shop Supplies & Repairs - Other	39,500		22,532.55	
Total 5500 · Shop Supplies & Repairs	39,500		27,511.01	
5550 · Chemicals	1,500		0.00	30,000
5700 · Work Crew and Field Crew Exp (Uniforms & Rugs)				
5704 · Specialized Clothing/outerwear			2,492.28	2,500
5700 · Work Crew and Field Crew Exp (Uniforms & Rugs)	11,657		7,606.00	7,000
Total 5700 · Work Crew and Field Crew Exp (Uniforms & Rugs)	11,657		10,098.28	9,500

Montezuma Valley Irrigation Company
Profit & Loss Budget vs. Actual
January through December 2011

2012 BUDGET

	Stock Assessment	20.50		27.50
	Account Fee	200.00		275.00
	2011 Budget		2011 Actual	2012 Budget
5800 · Company Expenses				
5801 · Utilities				
5812 · Water (tap) office & shop	288	314.00		
5813 · Telephones/Internet (Land Lines/Internet/Cell)	4,500	6,871.17		
5814 · Heating Costs (Propane)	5,000	5,174.11		
5801 · Utilities - Other	4,400	8,340.39		
Total 5801 · Utilities	14,188	20,699.67		20,000
5802 · County Property Tax (Montezuma and Dolores C)	4,075	5,012.83		5,000
5803 · UNCC - Line Locates	820	970.83		1,000
Total 5800 · Company Expenses	19,083	26,683.33		26,000
5900 · Administrative Expense				
5907 · Technology/software	1,500	1,293.24		
5908 · Web Site	350	411.61		
5909 · Computer Equipment	3,000	3,791.06		13,000
5910 · Office Expense	15,000	5,760.68		15,000
5911 · Postage	3,900	4,409.03		
5912 · Business Lunch & Refreshments	2,000	3,454.27		
5913 · Printing Exp Off-site	1,750	3,751.83		
5917 · Lease of copy machine	7,728	7,501.64		7,500
5935 · Directors Fees	40,200	40,200.00		40,000
5936 · G&A Clearing		(16,977.00)		
5941 · Fire Ext inspection/replacement	104	166.45		
5950 · Professional Fees				
5951 · Legal Fees	100,000	114,583.71		100,000
5952 · Accounting Fees	18,000	24,502.62		15,000
5957 · Engineering Fees	80,000	75,887.12		50,000
5950 · Professional Fees - Other		3,017.62		
Total 5950 · Professional Fees	198,000	217,991.07		240,500
5955 · Seminar, Meetings, Membership	7,000	9,225.81		9,000
5970 · Company Liability Insurance	38,300	35,550.00		40,000
5999 · Bonus		5,000.00		
5900 · Administrative Expense - Other	15,450	(5,101.45)		
Total 5900 · Administrative Expense	334,282	316,428.24		
5920 · Public Notices - Announcements (newspaper)	400	1,033.33		
5961 · Donations (Charitable & Community)	10,000	3,500.00		
6500 · Depreciation		405,553.00		
Total Expense	1,190,753	1,256,526.48		1,105,991
Net Ordinary Income	133,605	(138,759.60)		264,319.44
Other Income				
CWCB Loan				200,000
6700 · LP - Revenue DSBXX5505 (Capital Income)	95,000	163,671.85		
6800 · CIG - Revenue DSBXX5501 (Capital Income)	75,000	61,002.44		
Total Other Income	170,000	224,674.29		200,000
Other Expense				
6300 · Lone Pine Pipeline Reclamation (Capital Expense)		0.00		
6600 · LP/Rubicon Flume Gates (Capital Expense)		18,975.21		
6900 · Ground Hog/SCADA (Capital Expense)		12,740.11		
Water Accounting Package				20,000
Lonepine Pipeline Screen				100,000
Solar Panels on May Lateral				80,000

Montezuma Valley Irrigation Company
Profit & Loss Budget vs. Actual
January through December 2011

2012 BUDGET

	Stock Assessment	20.50		27.50
	Account Fee	200.00		275.00
		<u>2011 Budget</u>	<u>2011 Actual</u>	<u>2012 Budget</u>
Payment to DSB				100,000
7000 - Write Offs - Cash on Hand (Petty Cash)			3.04	
7100 - Bank Charges and Interest DSB			1,290.09	
7200 - CWCB Bank Charges and Interest (CWCB Loan)	150,000	66,372.69		
7300 - T/H OM&R Expense (Capital Expense)	43,159	43,159.00		43,159
7400 - DWCD Project Water O&M Expense (Capital Expense)	20,791	104,818.00		27,408
7500 - DWCD Non-Project O&M Expense (Capital Expense)	12,104	13,170.00		13,170
McPhee Project Loan Payment	63,200			63,200
McPhee Account Charge	14,210			14,210
Total Other Expense	303,464	260,528.14		461,147
Net Other Income	(133,464)	(35,853.85)		(261,147)
<u>Net Income</u>	<u>141</u>	<u>(174,613.45)</u>		<u>3,172</u>

BUDGET UPDATED 3/1/12 AND PROJECTED THROUGH 2016 WITH 3% INCREASE IN EXPENSES ANNUALLY

Stock Assessment	27.50	27.50	27.50	30.00	30.00
Account Fee	275.00	275.00	275.00	300.00	300.00
	2012 Budget	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Ordinary Income/Expense					
Income					
4100 · Assessments - Current	915,310	915,310	915,310	998,520	998,520
4150 · Maintenance - Current	385,000	385,000	385,000	420,000	420,000
4240 · TH OM&R Reimbursements	50,000	50,000	50,000	50,000	50,000
4304 · Finance Charges	5,000	5,000	5,000	5,000	5,000
4305 · Fees Income	10,000	10,000	10,000	10,000	10,000
4500 · Class B Water	5,000	5,000	5,000	5,000	5,000
Total Income	1,370,310	1,370,310	1,370,310	1,488,520	1,488,520
Expense					
5000 · Salary & Wages Expense	399,088	411,060	423,392	436,094	449,177
5050 · Payroll Tax & Benefit Expense	131,903	135,860	139,936	144,134	148,458
5100 · Heavy Equipment					
5100 · Heavy Equipment - Other	15,000	15,450	15,914	16,391	16,883
5125 · Vehicle Expense	15,000	15,450	15,914	16,391	16,883
5200 · Headgates, Pipe Etc. Expense	130,000	133,900	137,917	142,055	146,316
5250 · Fuel & Oil Expense	60,000	61,800	63,654	65,564	67,531
5550 · Chemicals	30,000	30,900	31,827	32,782	33,765
5704 · Specialized Clothing/outerwear	2,500				
5700 · Work Crew and Field Crew Exp (Uniforms & Rugs) - (7,000				
5801 · Utilities	20,000	20,600	21,218	21,855	22,510
5802 · County Property Tax (Montezuma and Dolores Couni	5,000	5,150	5,305	5,464	5,628
5803 · UNCC - Line Locates	1,000	1,030	1,061	1,093	1,126
5900 · Administrative Expense					
5909 · Computer Equipment	13,000	13,390	13,792	14,205	14,632
5910 · Office Expense	15,000	15,450	15,914	16,391	16,883
5917 · Lease of copy machine	7,500				
5935 · Directors Fees	40,000	41,200	42,436	43,709	45,020
5950 · Professional Fees					
5951 · Legal Fees	100,000	103,000	106,090	109,273	112,551
5952 · Accounting Fees	15,000	15,450	15,914	16,391	16,883
5957 · Engineering Fees	50,000	51,500	53,045	54,636	56,275
5955 · Seminar, Meetings, Membership	9,000	9,270	9,548	9,835	10,130
5970 · Company Liability Insurance	40,000	41,200	42,436	43,709	45,020
Total Expense	1,105,991	1,121,660	1,155,310	1,189,969	1,225,668
Net Ordinary Income	264,319	248,650	215,000	298,551	262,852
Capital Income					
CWCB Loan	340,000				
BOR WCFS Grant	100,000				
Anima Capital Funds	100,000	100,000	100,000	100,000	100,000
Line of Credit DSB					
Total Capital Income	540,000	100,000	100,000	100,000	100,000
Capital Expense					
Water Accounting Package	75,000				
Lonepine Pipeline Screen	134,500				
Lonepine Pipeline PRV Trim	33,000				
May Pipeline Screen	97,000				
Solar Panels on May Lateral	108,000				
Payment to DSB	95,000	85,000		80,000	40,000
7300 · T/H OM&R Expense (Capital Expense)	43,159	43,159	43,159	43,159	43,159
7400 · DWCD Project Water O&M Expense (Capital Expe	27,408	27,408	27,408	27,408	27,408
7500 · DWCD Non-Project O&M Expense (Capital Expen	13,170	13,170	13,170	13,170	13,170
McPhee Project Loan Payment	63,200	63,200	63,200	63,200	63,200
McPhee Account Charge	14,210	14,210	14,210	14,210	14,210
CWCB Loan Payment	100,000	100,000	150,000	150,000	150,000
Total Capital Expense	803,647	346,147	311,147	391,147	351,147
Net Capital Income	(263,647)	(246,147)	(211,147)	(291,147)	(251,147)
Net Income	672	2,503	3,853	7,404	11,705

EXPENSES 5% LESS THAN BUDGETTED AND PROJECTED THROUGH 2016 WITH 3% INCREASE IN EXPENSES ANNUALLY

Stock Assessment	27.50	27.50	27.50	27.50	27.50
Account Fee	275.00	275.00	275.00	275.00	275.00
	2012 Budget	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Ordinary Income/Expense					
Income					
4100 · Assessments - Current	915,310	915,310	915,310	915,310	915,310
4150 · Maintenance - Current	385,000	385,000	385,000	385,000	385,000
4240 · TH OM&R Reimbursements	50,000	50,000	50,000	50,000	50,000
4304 · Finance Charges	5,000	5,000	5,000	5,000	5,000
4305 · Fees Income	10,000	10,000	10,000	10,000	10,000
4500 · Class B Water	5,000	5,000	5,000	5,000	5,000
Total Income	1,370,310	1,370,310	1,370,310	1,370,310	1,370,310
Expense					
5000 · Salary & Wages Expense	379,133.33	390,507	402,223	414,289	426,718
5050 · Payroll Tax & Benefit Expense	125,307.70	129,067	132,939	136,927	141,035
5100 · Heavy Equipment					
5100 · Heavy Equipment - Other	14,250.00	14,678	15,118	15,571	16,039
5125 · Vehicle Expense	14,250.00	14,678	15,118	15,571	16,039
5200 · Headgates, Pipe Etc. Expense	123,500.00	127,205	131,021	134,952	139,000
5250 · Fuel & Oil Expense	57,000.00	58,710	60,471	62,285	64,154
5550 · Chemicals	28,500.00	29,355	30,236	31,143	32,077
5704 · Specialized Clothing/outerwear	2,375.00				
5700 · Work Crew and Field Crew Exp (Uniforms & Rugs) - (6,650.00				
5801 · Utilities	19,000.00	19,570	20,157	20,762	21,385
5802 · County Property Tax (Montezuma and Dolores Counti	4,750.00	4,893	5,039	5,190	5,346
5803 · UNCC - Line Locates	950.00	979	1,008	1,038	1,069
5900 · Administrative Expense					
5909 · Computer Equipment	12,350.00	12,721	13,102	13,495	13,900
5910 · Office Expense	14,250.00	14,678	15,118	15,571	16,039
5917 · Lease of copy machine	7,125.00				
5935 · Directors Fees	38,000.00	39,140	40,314	41,524	42,769
5950 · Professional Fees					
5951 · Legal Fees	95,000.00	97,850	100,786	103,809	106,923
5952 · Accounting Fees	14,250.00	14,678	15,118	15,571	16,039
5957 · Engineering Fees	47,500.00	48,925	50,393	51,905	53,462
5955 · Seminar, Meetings, Membership	8,550.00	8,807	9,071	9,343	9,623
5970 · Company Liability Insurance	38,000.00	39,140	40,314	41,524	42,769
Total Expense	1,050,691	1,065,577	1,097,545	1,130,471	1,164,385
Net Ordinary Income	319,619	304,733	272,765	239,839	205,925
Capital Income					
CWCB Loan	340,000				
BOR WCFS Grant	100,000				
Anima Capital Funds	100,000	100,000	100,000	100,000	100,000
Line of Credit DSB					
Total Capital Income	540,000	100,000	100,000	100,000	100,000
Capital Expense					
Water Accounting Package	75,000				
Lonepine Pipeline Screen	134,500				
Lonepine Pipeline PRV Trim	33,000				
May Pipeline Screen	97,000				
Solar Panels on May Lateral	108,000				
Payment to DSB	150,000	140,000	10,000		
7300 · T/H OM&R Expense (Capital Expense)	43,159	43,159	43,159	43,159	43,159
7400 · DWCD Project Water O&M Expense (Capital Expe	27,408	27,408	27,408	27,408	27,408
7500 · DWCD Non-Project O&M Expense (Capital Expen	13,170	13,170	13,170	13,170	13,170
McPhee Project Loan Payment	63,200	63,200	63,200	63,200	63,200
McPhee Account Charge	14,210	14,210	14,210	14,210	14,210
CWCB Loan Payment	100,000	100,000	150,000	150,000	150,000
Total Capital Expense	858,647	401,147	321,147	311,147	311,147
Net Capital Income	(318,647)	(301,147)	(221,147)	(211,147)	(211,147)
Net Income	972	3,586	51,618	28,692	(5,222)

APPENDIX E: BYLAWS AND ARTICLES OF INCORPORATION

Bylaws

The Montezuma Valley Irrigation Company

Cortez, Colorado

AMENDED AND RESTATED BYLAWS
Of
THE MONTEZUMA VALLEY
IRRIGATION COMPANY

Effective as of December 13, 2011

ARTICLE I
Corporate Name

The corporate name of the corporation shall be, as stated in the Certificate of Incorporation,
THE MONTEZUMA VALLEY IRRIGATION COMPANY.

ARTICLE II
Objects

The objects for which our said corporation is formed and incorporated are, as stated in the Certificate of Incorporation, the Articles of Incorporation and any and all amendments thereto:

Section 1. To take over and accept, in accordance with the provisions of the decree of the District Court of the County of Montezuma and State of Colorado, heretofore and on, to wit, the 21st day of September, A.D. 1920, duly entered in a proceeding in said Court then pending entitled, "In the Matter of the Petition to Dissolve the Montezuma Valley Irrigation District", and thereafter to repair, improve, use, operate, control, manage and maintain the irrigation system of the Montezuma Valley Irrigation District, which said District was by the provisions of said decree duly dissolved, and which said decree did provide for the transfer and conveyance to this Company upon its incorporation of the entire physical irrigation system of said District, including all dams, reservoirs, canals, rights-of-way, priorities, franchises, privileges and other property of any kind or nature used in the operation of said system, and also for the transfer to this Company of all contracts covering perpetual water rights which constituted a liability of said District, and other contracts pertaining to the furnishing of water for which said District was liable, to be assumed by this Company, and likewise for the transfer of all notes and contracts in connection therewith still held by said District and executed prior to the rendition of said decree and for the transfer and delivery to the proper officer of the Company of all monies constituting the General or Maintenance Fund of said District, and which said decree did further provide that upon the consummation thereof, all owners of lands holding perpetual water rights and all holders of contracts for the use of said water with said Irrigation District, directly or as assignee, shall be entitled to shares of the capital stock of this Company under such terms and conditions as the Board of Directors determine from time to time and theretofore subject to assessment or contract as aforesaid.

Section 2. To build, construct, purchase, acquire, hold, use, operate, control, manage and maintain ditches, canals, pipelines, and reservoirs, for the purpose of carrying, storing and distributing water for irrigation and domestic purposes, and to acquire, by purchase or otherwise, ditches, canals, pipelines or reservoirs, and ditch, reservoir or irrigation interests, whether represented by filings, franchises, easements, stocks in other corporations or priorities to the use of water under decrees of court.

Section 3. To distribute and supply water to the Class A stockholders of this Company, for domestic and irrigation purposes, proportionately and equitably, according to the available supply of water, in the ratio that each share of Class A stock in this Company bears to the total number of Class A shares issued, and which is to be distributed to the Class A stockholders so entitled thereto upon such terms and at such times and under such conditions as may be hereafter fixed by the Board of Directors of this Company; and to others entitled thereto under contracts entered into with this Company or because vested with perpetual water rights, upon such terms and at such times and under such conditions as such contractual or vested rights may entitle them to.

Section 4. To distribute and supply water to the Class B stockholders of this Company, for agricultural purposes, equal to four acre feet per share of Class B stock which shall be junior and subordinate to the delivery rights and water rights held by the Class A stock, and which shall be distributed upon such terms and at such times and under such conditions as may be hereafter fixed.

Section 5. This Company shall have the power to enter into contracts from time to time, as the Board of Directors shall deem appropriate, provided however, that no such contracts may be entered into by the Board for the lease or sale of any of this corporation's water except that which is in excess of stockholder needs for the relevant water year during which said lease or sale is contemplated. Further provided, however, that no such contract may be entered into by the Board of Directors for a period exceeding one year without the approval of a majority of the shares voted thereon at a special meeting of stockholders called for that purpose or at the regular annual meeting of stockholders.

Section 6. This Company shall have the power to borrow money and to execute notes, bonds, mortgages, debentures or other evidences of indebtedness, securing the same by mortgage or deed of trust, as may be desirable in the premises; and generally to do and perform any and all things necessary or convenient in the carrying out of the aforesaid purposes.

ARTICLE III Board of Directors

Section 1. The Board of Directors shall consist of seven members. It shall be the duty of the Board of Directors to exercise a general supervision over and management of the affairs of the corporation and to receive and pass upon the reports of the President, Secretary, Treasurer and General Manager, to audit all bills and accounts against the corporation and to direct the officers thereof in the general conduct and business of the corporation. Said Board may remove any officer for cause as in these Bylaws provided and shall have the control of any books, papers or documents of the corporation in the hands of any of its officers.

Section 2. The Directors standing election shall be elected by the Class A stockholders at the regular annual meeting thereof, or in case of failure to so elect, they may be elected at any special meeting which may be called for that purpose, and shall hold their office, unless removed as herein provided, for the term of three years and until their successors are duly elected and qualified, and in case of election at a special meeting of the Class A stockholders, until the expiration of the then three year term or until their successors are duly elected and qualified.

Section 3. No person shall be eligible to the office of Director who is not at the time of the closing of the Stock Transfer Books of the corporation prior to the election, or at the time of his appointment, a stockholder of at least 10 shares of Class A stock in said corporation, and a transfer by a Director of Class A stock such that his stock ownership is less than 10 shares of Class A stock shall operate as a resignation of his office and create a vacancy thereof.

Section 4. If any vacancy shall occur in the Board of Directors, such vacancy shall be filled, for the remainder of the un-expired term, from the Class A stockholders, at any meeting of the Board. Any Director may be removed for cause at any time by a vote of two-thirds in amount of all the Class A stock present and voting at any regular or special meeting of the stockholders called for that purpose.

Section 5. The territory served by the distribution system is hereby divided into seven (7) Director Districts, said Director Districts being described upon the Director District map which is attached hereto as Exhibit A and incorporated into these Bylaws and made a part hereof. One Director shall be elected from each of said districts. A person shall be eligible to the office of Director only in the Director District within which he either resides or takes delivery of 10 shares or more of the water represented by the shares of Class A stock owned by him.

Section 6. In the event of any claim or complaint filed against or directed at any member of the Montezuma Valley Irrigation Company Board of Directors relative to conduct or actions taken within the performance of said Director's duties, the Company is hereby authorized and directed to pay any and all costs of litigation including attorney fees for the defense of said Director or Directors.

ARTICLE IV

Officers

Section 1. The officers of this corporation shall consist of a President, a Vice-President, a Treasurer and a Secretary, who shall be elected by the Directors at their first meeting following the annual meeting of the stockholders in each year. Such officers shall be selected from the Board of Directors, and shall hold their respective offices for the term of one year or until their successors are elected and shall qualify, unless they shall resign, be removed or become disqualified. They shall receive such compensation for their services as the Board of Directors may, from time to time, determine.

Section 2. Any two of said offices, the duties of which do not conflict, may be held by one and the same person if the Board of Directors shall so elect.

Section 3. In case a vacancy or vacancies shall occur in any of said offices, the same shall be filled for the remainder of the un-expired term by the Directors at any meeting of the Board of Directors.

Section 4. The Board of Directors may, in case of the absence of any officer, or disability of any officer to perform his duties, or for any other reason deemed sufficient by the Board, delegate the powers and duties of such officer to any other officer, or to any Director, for the time being, providing a majority of the whole Board concurs.

Section 5. The Board of Directors shall appoint a General Manager who shall be qualified to manage and superintend the physical operation of the Company's system. Said manager shall be hired under such terms and for such salary and remuneration as in the judgment of the Board of Directors is necessary and proper.

Section 6. The Board of Directors may from time to time, as may be deemed advisable, appoint other officers for the corporation, who shall perform such duties as may be assigned them.

ARTICLE V Duties of Officers

Section 1. DUTIES OF PRESIDENT: It shall be the duty of the President to preside at all meetings of the stockholders and Directors of the corporation and to sign all certificates of stock and all papers, deeds, contracts and other instruments of writing authorized by the Board of Directors to be executed. He shall sign the minutes of all meetings over which he may preside and shall be an ex-officio member of all standing committees and shall have general supervision over the affairs of the corporation and perform such other duties as may be required of him by law, and these Bylaws, and by the Board of Directors, and in general shall perform the duties and functions usually pertaining to and vested in the President of a corporation.

Section 2. DUTIES OF VICE-PRESIDENT: It shall be the duty of the Vice-President, in case of sickness or other disability preventing the President from performing the duties of his office, to perform and discharge the duties and functions pertaining to the office of President and such other duties as may be required of him by the Board of Directors.

Section 3. DUTIES OF SECRETARY: It shall be the duty of the Secretary to give such notices as are required of all meetings of the stockholders and Directors of the corporation and to attend all such meetings and act as the clerk thereof; to keep, record and preserve the minutes of all meetings of the stockholders and Directors in appropriate record and to sign all such minutes as Secretary, and to perform like duties for any standing committee, when required; to have the custody of the corporate seal, stock books, certificates and records of the corporation, and to attest the affixing of the seal to all certificates of stock, deeds, contracts and other instruments of writing executed under the corporate seal of the corporation; to have charge of and preserve all papers and documents of the corporation not properly belonging to the custody of the Treasurer; to sign, issue and register all certificates of stock and generally to perform such duties as usually pertain to the office of Secretary; and as well such as may be specifically assigned and directed by the Board of Directors. The Secretary shall also attend to the filing of all papers required by law to be filed. Subject to the approval of the Board of Directors, the Secretary may engage the assistance of such services as may be needed for the professional and efficient performance of the duties of the Secretary. All services provided by assistants shall be performed under the supervision of the Secretary.

Section 4. DUTIES OF TREASURER: The Treasurer shall be the custodian of the funds of the corporation and shall disburse the same as shall be ordered by the Board of Directors, and all securities, valuable papers and documents connected with and pertaining to properties and business of the corporation, which shall be kept in such depositories and in such manner as shall be directed by the Board of Directors; and he shall keep a complete and proper record and account thereof, and vouchers of all funds disbursed, all of which shall be accessible for inspection by the Board of Directors at any time. He shall render to the Board of Directors whenever they may require, an account of all his transactions and the financial condition of the corporation, and perform such other duties as may be prescribed by the Board of Directors. He may be required to give a good and sufficient surety bond, which shall be paid for by order of the Board out of the Company funds, in an amount to be fixed by the Board, from time to

time, for the faithful performance of his duties and accounting for and turning over of all money, property and documents of the corporation which shall come into his hands as Treasurer. Subject to the approval of the Board of Directors, the Treasurer may engage the assistance of such services as may be needed for the professional and efficient performance of the duties of the Treasurer. All services provided by assistants shall be performed under the supervision of the Treasurer.

Section 5. DUTIES OF GENERAL MANAGER: The General Manager shall, under the direction of the Board of Directors, have control of the construction, care and management of the system, and the distribution of water through the Company's ditches and canals, pipelines or other facilities, or through ditches and pipelines owned by others. He may appoint one or more assistants, subject to the approval of the Board of Directors. The General Manager and all assistants and employees shall receive such salary as the Board of Directors may determine. He may, if in his judgment it is to the best interests of the consumers of water, and he shall, if so directed by vote of the Board of Directors, alternate or rotate the distribution of water among the consumers upon different days.

ARTICLE VI Directors' Meetings

Section 1. The Board of Directors shall meet regularly on the second Tuesday of each and every month at the hour of 1:00 p.m. in the afternoon. The Board of Directors shall meet at such other times as they shall from time to time determine. A special meeting of the Board may be called at any time by the President, or any four Directors to be held at the time and place designated in the call and notice thereof, upon twenty-four hours' notice served personally or by mail or telephone. All regular meetings of the Board shall be held at the Company office and no notice of regular meeting shall be necessary or required.

Section 2. Any Director may at any time waive notice required to be given under these Bylaws and whenever all the Directors of the corporation shall be present at any meeting, however called, or those absent sign a written consent thereto, or approval of the minutes of any such meeting upon the record thereof, the acts of such meeting shall be as valid and binding as if regularly called as provided herein.

Section 3. At all meetings of the Board of Directors, four Directors shall be required to constitute a quorum for the transaction of business. The act of the majority of the Directors present at a meeting at which a quorum is present shall be the act of the Directors.

Section 4. The order of business of any meeting of the Board of Directors shall be as they may determine at the time.

Section 5. For attending each regular or special meeting, Directors shall receive such compensation as the Board of Directors may from time to time determine.

ARTICLE VII Stockholders' Meetings

Section 1. The regular annual meeting of the stockholders of the corporation for the election of Directors and the transaction of other business shall be held at a place to be designated by the Board of Directors, in Cortez, Montezuma County, Colorado, on the third Saturday of January in each year, starting at the hour of 1:00 p.m. in the afternoon.

Section 2. Special meetings of the stockholders may be called for the election of Directors, or for any other purpose, whenever deemed necessary by a majority of the Board of Directors, by the President, or such special meeting may be called at any time by a majority an amount of outstanding Class A stock of the Company, as provided by statute (C.R.S. § 7-107-102), which meetings shall be held at such date, hour and place as shall be designated in the call therefore.

Section 3. Notice to each stockholder of record stating the place, day, hour and purpose of the meeting shall be mailed or delivered in person at least ten (10) days previous to each regular annual or special meeting (adjourned meetings excepted). If mailed, notice shall be deemed to be delivered when deposited in the United States mail, addressed to the stockholder at the stockholder's address as it appears on the books of the Corporation, with postage thereon prepaid.

Section 4. At all meetings of the stockholders at least twenty (20) percent of the outstanding Class A stock of the corporation must be represented either in person or by written proxy in order to constitute a quorum for the transaction of business, but less than a quorum may adjourn to some subsequent date, but not for a period longer than sixty (60) days. The stockholders present at a duly organized meeting at which a quorum exists may continue to transact business until adjournment, notwithstanding the withdrawal of attending stockholders resulting in less than a quorum.

Section 5. Representation by written proxy, subscribed by the registered Class A stockholder, shall be allowed, and the instrument authorizing the proxy to act at the meeting shall be exhibited at the time of such meeting when called for, and filed with the Secretary and no proxy shall be permitted to vote unless the same is held by a Class A stockholder of the corporation, except that Class A stock held in the name of a corporation, partnership, political subdivision of the State of Colorado or unincorporated association may be voted by the person designated by resolution duly adopted by the corporation, partnership, political subdivision or unincorporated association.

Section 6. At all meetings of the stockholders, each Class A stockholder shall be entitled to one vote for each share of Class A stock appearing from the stock books of the corporation as registered in his name, which vote may be given personally or by written proxy, as herein provided, and to cast as many votes as he owns or represents shares of Class A stock in the corporation. The affirmative vote of a majority of the Class A stock voted shall be required to adopt a resolution or pass a motion. The cumulative system of voting for Directors is hereby adopted and shall be allowed as provided by the laws of the State of Colorado.

Section 7. All elections of Directors of the corporation shall be by written ballot. Voting upon matters other than election of Directors may be by voice vote if the motion being voted upon is adopted unanimously. In the event of any dissenting vote by voice, a written ballot shall be voted.

Section 8. The order of business at all regular and annual meetings of the stockholders shall be as follows:

- A. Stock registration.
- B. Reading minutes of preceding meeting.
- C. Reports of officers and committees.
- D. Election of Directors.
- E. Unfinished business.
- F. New business.
- G. Adjournment.

Provided, however, that the order of business at any meeting may be changed by a vote of the majority of the Class A stock as provided in Section 6 above.

ARTICLE VIII
Certificates of Stock
Transfers of Stock
Assessments of Stock

Section 1. The subscribers to the capital stock of this corporation and all stockholders hereof shall be entitled to certificates of their shares duly signed by the President and countersigned by the Secretary. The certificates shall identify the stock ownership as either Class A or Class B stock, and if no such designation appears on the certificate, and in the records of the corporation, such stock shall be deemed to be Class A stock. The certificates of stock shall be dated, numbered and registered as they are issued. The transfer of stock shall only be made on the books of the corporation, either in person or by attorney or legal representative, and upon presentation and surrender of the shares so transferred by the owner in person, or by attorney or legal representative; provided, however, that no stock shall be transferred until all assessments, charges and arrearages then due the Company, with regard to the entire ownership interest of the stockholder conveying, transferring, or surrendering said corporate stock, have been fully paid; and provided further that upon each transfer of stock the Secretary of the Company shall charge a transfer fee in an amount fixed by the Board of Directors from time to time for each new certificate issued, which shall be paid in advance by the party on whose behalf the certificate is issued. All fees thus received shall be paid by the Secretary into the treasury of the Company.

Section 2. For the purpose of determining stockholders entitled to notice of or to vote at any meeting of the stockholders or any adjournment thereof, the transfer books of the corporation shall be closed for a period of ten days previous to the meeting of the stockholders and notice that the transfer books will be so closed shall be issued and published in the call for the meeting. All stockholders as of the date of the closing of the transfer books shall be the stockholders entitled to vote at the meeting. When a determination of stockholders entitled to vote at any meeting of stockholders has been made as provided in this section, such determination shall apply to any adjournment thereof.

Section 3. The Class A stock of this Company shall be assessable for maintaining, operating, improving, enlarging and extending the ditch and reservoir system of the Company, for the purpose of providing funds to pay for property acquired by the Company, and for other necessary expenses, provided, however, that no assessment shall be made unless the question of making such assessment shall first be submitted to the Class A stockholders of the corporation at an annual meeting, or at a special meeting called for that purpose, and a majority of the Class A stock voting thereon shall vote in favor of making such assessment, and in case said Class A stockholders fail to hold any such meeting or fail to make or authorize any such assessment by the first of April in any year, then the Directors shall have power to make such assessment at any regular or special meeting called therefore for such year.

Section 4. All assessments of Class A stock shall be made pro rata upon all the Class A stock of the Company issued and outstanding, and shall be due and payable on the first day of the month following the annual meeting at which the assessment is made. Any payment under this section shall be deemed received by the Company on the date that it is actually received in the office. If the date for payment remittance falls upon a Saturday, Sunday, or legal holiday, it shall be deemed to have been timely paid if paid on the next business day.

Section 5. The Secretary shall mail to each stockholder of record at his post office address as shown upon the books of the Company, a notice of such assessment, the amount thereof, the time or times when same is payable and the penalties and fees due if payment is not received as noted in Section 4 above. If any stockholder shall not have registered his post office address with the Secretary, he shall be deemed to have waived notice by mail of all assessments. No water or other services shall be delivered to a stockholder until all assessments, charges and arrearages then due the Company, with regard to the entire ownership interest of the stockholder have been fully paid.

Section 6. The Company shall have a lien on all the stock held by its stockholders to secure payment of assessments levied on the stock of such stockholder, together with all interest, penalties, fees and costs of collection; and the Company shall also have a lien for all charges for headgates, measuring devices and all other items sold to the stockholder and for such other items as are directed to be charged to any stockholder by the Board of Directors, together with all costs of collection whether by sale, suit or otherwise. Any stockholder who fails to pay any assessment on stock or to pay for any headgate, measuring device or other items sold or property charged to said stockholder based on the stock owned by said stockholder or held by him or standing in his name on the Company books or any installment thereof at the time fixed for the payment thereof, shall pay interest on all delinquent amounts at the rate established by the Board of Directors from time to time. In case any delinquency shall continue to the thirty-first day of December, the Secretary shall report the same to the board. Subsequently, demand notice will be sent and upon demand being made upon said stockholder the Board of Directors may order a sale to the highest bidder at public venue of said stock or such portion thereof as may be necessary to pay the amount due the Company and the costs and expenses of such sale. Notice of such sale shall be given by publication in a daily or weekly newspaper published at Cortez, Colorado (the first publication of which shall be at least thirty (30) days prior to the date of sale) for four consecutive weekly insertions. On the date of sale, in the event the stockholder has not paid all delinquent assessments, interest, penalties, fees and costs of collection, together with costs of sale, publication and interest, the stock shall be sold to the highest bidder and transferred by the appropriate corporate officers to said bidder. Notice of said sale amount and accounting shall be sent to the stockholder within thirty (30) days after sale.

Section 7. Each share of Class A stock shall be entitled to a proportionate amount of the total amount of water available when distributed to all other stockholders as determined by the Board of Directors.

Section 8. In the event of lost certificate of stock, the owner thereof may procure a new certificate upon AFFIDAVIT to the Board of Directors that said certificate has been lost and cannot be found, and the circumstances surrounding said loss, and by filing with the Board a satisfactory surety bond executed by claimant and a corporate surety in such amount as the Board shall from time to time determine. Lost certificates may also be issued pursuant to Section 7-42-113 to 117, C.R.S., as amended.

Section 9. Each stockholder, upon receiving his certificate of stock, shall give his post office address, and upon changing the same shall at once notify the Secretary, for the purpose of giving all notices to members of meetings and assessments. The address as shown upon the books of the Company shall be deemed the correct address for the purpose of providing any and all notice to the stockholder and all such notice shall be deemed given upon deposit in the U.S. mail, of any such notice, postage prepaid at Cortez, Colorado.

Section 10. No transfer of ownership on the Company books will be made whereby Class A stock ownership will be divided so that one ownership interest will be of less than one (1) share of Class A stock. However, no headgate from any Company open canal will divert less than ten (10) shares. A minimum of one (1) share may be diverted from a pressurized pipe. See Article XIII for additional information.

Section 11. Ownership interest as used in Section 10 of this Article shall mean all of the Class A stock owned by any one person, partnership, corporation, or other entity, regardless of whether said total Class A stock shares are represented by one or more certificates. However, no certificate will be issued for less than one (1) share of Class A stock (no certificate will be issued in a fractional amount; must be whole number). This provision of the bylaws shall be construed to prevent the issuance of fractional shares of the Company.

Section 12. Class B stock shall have no voting power with the corporation for any purpose whatsoever, and the holders of common stock Class A shall, to the exclusion of the holders of common stock Class B, have full voting power for all purposes. The holder of Class B stock, however, may appoint a representative to attend meetings of the Company Board of Directors with the right to speak at such meetings.

Section 13. Class B stock shall be restricted and shall be limited to agricultural purposes for delivery and beneficial application in Montezuma and Dolores Counties outside the limits and extensions of the present MVIC delivery system of the purchase agreement between MVIC and the Dolores Water Conservancy District as they may be changed or amended from time to time.

Section 14. Class B stock shall bear a restrictive endorsement, which shall provide that the stock may not be sold or transferred except with the express written consent of the Company, after consultation with the District.

Section 15. Class B stock shall be assessed annually at the same time as Class A stock, only as follows: (1) an Administrative Fee/Account Charge equal to five (5) times the account charge the Company assesses a Company Class A stockholder, and (2) an annual operation and maintenance ("O & M") fee equal to one-third (1/3) of the cost the Company pays the District for its O&M obligation for Dolores Project water at McPhee Dam and Great Cut Dike, excluding the cost of pumping from the U-lateral, and no other Company assessment.

ARTICLE IX Contracts, Notes

Section 1. All written obligations of the corporation such as notes, bonds, acceptances, contracts, agreements, deeds and all other instruments of writing, shall be signed with the corporate name, by the President, or in his absence by the Vice-President, and countersigned or attested by the Secretary and the corporate seal affixed.

Section 2. All funds of the corporation on deposit in any bank or banks shall be withdrawn by check or order in such manner as shall be ordered by the Board of Directors.

Section 3. The Company may enter into contracts with any person, corporation, partnership, political subdivision of the State of Colorado or unincorporated association to transport, distribute, supply or sell water subject to the limitations of Article II, Section 5 above.

ARTICLE X Depository

The funds of this corporation shall be deposited in the name of said corporation, in such bank or banks, trust companies or other depositories as may from time to time be determined by the Board of Directors.

ARTICLE XI Regulations for Distribution

Section 1. The unit of measurement shall be the second-foot, which is one cubic foot of water per second of time, and the method of measurement shall be by parshall flume or other measuring device as approved by the Board of Directors.

Section 2. No water will be delivered, except through such parshall flume or other approved measuring device.

Section 3. All perpetual and contract rights to the use of water existing upon the dissolution of the Montezuma Valley Irrigation District and assumed by the Company, shall be fully respected, and water shall be delivered and distributed to those entitled thereto under such vested and contractual rights, in such manner and under such regulations as such vested and contractual rights entitle them to; it being the purpose of this provision to, in all respects, preserve the status quo of such rights existing prior to the dissolution of the said The Montezuma Valley Irrigation District, in all cases where such rights have not been converted into stock of the Company.

Section 4. Water will be shared and shared alike by all Class A stockholders, pro rata, based upon the number of shares owned. All deliveries will be measured at the stockholder's measuring device. All allocations will be measured in acre-feet per share for the season. Water measured by a parshall flume will measure in acre-feet determined by the number of days that a full head is available, or other flow and time that water is made available to the stockholder by the Company. The season's estimated allocation will be set by the Board of Directors. The initial allocation will be set conservatively enough to assure

delivery of the allocation to all stockholders. This allocation may be adjusted by the Board of Directors from time to time during the season as may be necessary. During a water short year, the allocation will not be set at more than can be delivered to all Class A stockholders.

ARTICLE XII
Rights and Restrictions Upon
Rights Represented by Stock

Section 1. Water shall be delivered by the Company into Company's main canals or through other ditches and canals and pipelines whether owned by the Company or owned by others, by and through a headgate or pipeline turnout and through a parshall flume or other measuring device approved by the Board of Directors. No water will be delivered except through the Company's headgate and an approved measuring device. No water will be pumped directly out of a canal or ditch owned by the Company. Once turned out of the canal for the account of a stockholder and measured, the management, use and enjoyment of the water so delivered and the duty of complying with the laws of any applicable regulatory authority respecting such water is the sole responsibility of the stockholder and/or individual receiving that water.

Section 2. The Company shall own and control all headgates, measuring structures and any structures associated with the operation of the canal and delivery of water to the stockholders. All headgates and measuring devices shall be installed by Company personnel or by contract under the supervision of the Company's manager. No other person will be permitted to cut the banks of any canal or ditch of the Company. All headgates, pipeline turnouts, measuring structures and related structures installed or relocated at the request of a stockholder or due to the changes in a stockholder's operation shall be paid in full by the stockholder. Any engineering and legal fees incurred by the Company in reviewing the plans and specifications or entering into an agreement relating to any such structure shall be paid in advance or reimbursed to the Company. Before beginning work, including the review of any anticipated plans or agreements, a deposit in the estimated amount of the cost of the work shall be made. No water shall be delivered through the structure until the entire structure has been paid for by the stockholder.

Section 3. Any change or modification to the delivery and measurement facilities, not performed by Company personnel, by contract with the Company or approved by the Board of Directors shall be deemed to have been done by the stockholder(s) taking water from the structure and the cost of correcting the change or modification shall be charged to the stockholder(s) taking water from the structure.

Any change or modification to the Company's canal, structures, canal access or right-of-way, other than delivery and measurement facilities, not performed by Company personnel, by contract with the Company or approved by the Board of Directors shall be deemed to have been done by the stockholder owning real property at the location where the work was conducted and the cost of correcting the change or modification shall be charged to the stockholder causing the modification.

The standard for correcting the unauthorized change or modification shall be that standard of materials and workmanship utilized and practiced by the Company and Company personnel at the time the work is being performed.

Section 4. Any stockholder desiring to make any change in water rights of any kind or nature shall make prior written request to the Board of Directors. No stockholder shall sell, lease, or convey water represented by Company shares outside of those areas served by or through the facilities of the Company or change the point of diversion or change the point of delivery of Company water rights or in any other way impact the Company water rights without the consent of the Board of Directors. Such sale, lease, conveyance or change shall be presumed by the Company to be injurious to the Company and the remaining stockholders. Therefore the stockholder desiring to make such sale, lease, conveyance or change shall have the burden of proving to the satisfaction of the Board of Directors, that no injury or damage shall occur to the Company's facilities, the Company or other stockholders.

Any stockholders desiring to sell, lease or convey water represented by Company shares outside those areas served by or through the facilities of the Company, or to change the use or time of use, or change the point of diversion or change the point of delivery with regard to any water to which he may be entitled, shall make written request therefore to the Board of Directors. The Board of Directors shall have the sole, absolute and final discretion to make or enter any appropriate orders with regard to any request so made provided that all stockholders of the Company shall be duly notified of any such request and that a hearing shall be held before the Board of Directors which shall be open to any and all stockholders of the Company. The stockholder requesting the change shall pay all costs associated with reviewing the requests, including, in the event that the Board of Directors in making any determination as provided herein shall require legal and/or engineering services for the purposes of making such determination, the costs of all legal and engineering services shall be paid by the stockholder making such request and the Board of Directors may require that the estimated costs thereof be paid to the Company prior to engaging such services by the Board of Directors. In such event the Board of Directors may, without penalty or liability, defer any such determination until such condition has been met.

Section 5. No person shall be allowed to place dams or obstructions of any kind in the Company's canals.

Section 6. In case the Company's canals or ditches shall be unable to carry and distribute a volume of water equal to the estimated capacity, either from casual or unforeseen or unavoidable conditions, or if the volume of water prove insufficient due to drought, or from any other cause beyond the control or reasonable expectation of said Company, the Company shall not be liable in any way for shortness or deficiency or inadequacy of supply occasioned by any of said causes; nor shall the Company be liable, in any case, for loss or damage by reason of any leakage, seepage or overflow from any of the canals, ditches, laterals or reservoirs, anything in any statute, law or custom to the contrary notwithstanding.

Section 7. If by reason of any cause the supply of water shall be insufficient to fill or flow through the Company's canals or ditches according to the estimated capacity thereof, or if from any cause beyond the control of the Company the supply shall be insufficient to furnish the amount equal to all the water to be furnished for that year, the Company shall have the right to distribute such water on a pro rata basis to the Class A stockholders as may flow through the canals or ditches to all Class A stockholders entitled thereto; and, for the purpose of so doing, may establish and enforce such rules and regulations as may be deemed necessary or expedient.

Section 8. The Board of Directors shall have the power to make and enforce such additional reasonable rules and regulations for the carriage and distribution of water as may, in their judgment, be necessary and proper.

Section 9. Any part of any canal or lateral of the Company which lies within the incorporated City of Cortez, Colorado, may be abandoned providing the City of Cortez shall assume the obligation of delivery of water to stockholders under such ditch proposed or sought to be abandoned. Any deliveries made by such substituted delivery shall be made through a measuring device so as to insure to the Company and all of its stockholders an equitable distribution of available water. If deliveries are made through a pipeline of the City of Cortez, the Company shall pay the cost incident to the installation of the meter or measuring device and such measuring device shall remain the property of the Company.

Section 10. The right of Class B stock to the delivery of water is junior to the right of Class A stock and Class B stock shall be shorted before Class A stock is shorted, but any shortage assigned the Class B stock shall not exceed the percentage shortage experienced by the Dolores Project's Full Service irrigators.

ARTICLE XIII

Indemnification of Directors, Officers, Agents and Employees

Section 1. Definitions. The following definitions shall apply to the terms as used in this Article:

(a) "Corporation" includes this corporation and any domestic or foreign predecessor entity of the corporation in a merger, or other transaction in which the predecessor's existence ceased upon consummation of the transaction.

(b) "Director" means an individual who is or was a Director of the corporation and an individual who, while a Director of the corporation, is or was serving at the corporation's request as a Director, an officer, an agent, an associate, an employee, a fiduciary, a manager, a member, a partner, a promoter, or a trustee of or to hold any similar position with another foreign or domestic entity or employee benefit plan. A Director shall be considered to be serving an employee benefit plan at the corporation's request if his or her duties to the corporation also impose duties on or otherwise involve services by him or her to the plan or to participants in or beneficiaries of the plan. "Director" includes, unless the context otherwise requires, the estate or personal representative of a Director.

(c) "Expenses" includes counsel fees.

(d) "Liability" means the obligation to pay a judgment, settlement, penalty, fine (including an excise tax assessed with respect to an employee benefit plan), or reasonable expense incurred with respect to a proceeding.

(e) "Official capacity" when used with respect to a Director, means the office of Director in the corporation, and, when used with respect to a person other than a Director, means the office in the corporation held by the officer or the employment or agency relationship undertaken by the employee or agent on behalf of the corporation. "Official capacity" does not include service for any other foreign or domestic corporation or for any partnership, joint venture, trust, other enterprise, or employee benefit plan.

(f) "Party" includes a person who was, is, or is threatened to be made a named defendant or respondent in a proceeding.

(g) "Proceeding" means any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative and whether formal or informal.

Section 2. Indemnification for Liability.

(a) Except as provided in paragraph (d) of this Section 2, the corporation shall indemnify against liability incurred in any proceeding any person made a party to the proceeding because he or she is or was a Director or officer if:

- (i) He or she conducted him or herself in good faith;
- (ii) He or she reasonably believed:

- (A) In the case of conduct in his or her official capacity with the corporation, that his or her conduct was in the corporation's best interests; or
 - (B) In all other cases, that his or her conduct was at least not opposed to the corporation's best interests; and
 - (iii) In the case of any criminal proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.
- (b) A Director's or officer's conduct with respect to an employee benefit plan for a purpose he or she reasonably believed to be in the interests of the participants in or beneficiaries of the plan is conduct that satisfies the requirements of this Section 2. A Director's or officer's conduct with respect to an employee benefit plan for a purpose that he or she did not reasonably believe to be in the interests of the participants in or beneficiaries of the plan shall be deemed not to satisfy the requirements of this Section 2.
- (c) The termination of any proceeding by judgment, order, settlement, or conviction, or upon a plea of nolo contendere or its equivalent, is not of itself determinative that the person did not meet the standard of conduct set forth in paragraph (a) of this Section 2.
- (d) The corporation may not indemnify a Director or officer under this Section (2) either.
- (i) In connection with a proceeding by or in the right of the corporation in which the Director or officer was adjudged liable to the corporation; or
 - (ii) In connection with any proceeding charging improper personal benefit to the Director or officer, whether or not involving action in his or her official capacity, in which he or she was adjudged liable on the basis that personal benefit was improperly received by him or her.
- (e) Indemnification permitted under this Section 2 in connection with a proceeding by or in the right of the corporation is limited to reasonable expenses incurred in connection with the proceeding.

Section 3. Mandatory Indemnification.

- (a) Except as limited by these Bylaws, the corporation shall be required to indemnify a Director or officer of the corporation who was wholly successful, on the merits or otherwise, in defense of any proceeding to which he or she was a party against reasonable expenses incurred by him or her in connection with the proceeding.
- (b) Except as otherwise limited by these Bylaws, a Director or officer who is or was a party to a proceeding may apply for indemnification to the court conducting the proceeding or to another court of competent jurisdiction. On receipt of an application, the court, after giving any notice the court considers necessary, may order indemnification in the following manner:
- (i) If it determines the Director or officer is entitled to mandatory indemnification, the court shall order indemnification under paragraph (a) of this Section 3, in which case the court shall also order the corporation to pay the Director's or officer's reasonable expenses incurred to obtain court-ordered indemnification.
 - (ii) If it determines that the Director or officer is fairly and reasonably entitled to indemnification in view of all the relevant circumstances, whether or not he or she met the standard of conduct set forth in paragraph (a) of Section 2 of this Article or was adjudged liable in the circumstances described in paragraph (d) of Section 2 of this Article, the court may order such indemnification as the court deems proper; except that the indemnification with respect to any proceeding in which liability shall have been adjudged in the circumstances described in paragraph (d) of Section 2 of this Article is limited to reasonable expenses incurred.

Section 4. Limitation on Indemnification.

- (a) The corporation may not indemnify a Director or officer under Section 2 of this Article unless authorized in the specific case after a determination has been made that indemnification of the Director or officer is permissible in the circumstances because he or she has met the standard of conduct set forth in paragraph (a) of Section 2 of this Article.
- (b) The determination required to be made by paragraph (a) of this Section 4 shall be made:
 - (i) By the board of Directors by a majority vote of a quorum, which quorum shall consist of Directors not parties to the proceeding; or
 - (ii) If a quorum cannot be obtained, by a majority vote of a committee of the board designated by the Board, which committee shall consist of two or more Directors not parties to the proceeding, except that Directors who are parties to the proceeding may participate in the designation of Directors for the committee.
- (c) If the quorum cannot be obtained or the committee cannot be established under paragraph (b) of this Section 4, or even if a quorum is obtained or a committee designated if such quorum or committee so directs, the determination required to be made by paragraph (a) of this Section 4 shall be made:
 - (i) By independent legal counsel selected by a vote of the Board of Directors or the committee in the manner specified in subparagraph (i) or (ii) of paragraph (b) of this Section 4 or, if a quorum of the full Board cannot be obtained and a committee cannot be established, by independent legal counsel selected by a majority vote of the full Board; or
 - (ii) By the stockholders.
- (d) Authorization of indemnification and evaluation as to reasonableness of expenses shall be made in the same manner as the determination that indemnification is permissible; except that, if the determination that indemnification is permissible is made by independent legal counsel, authorization of indemnification and evaluation as to reasonableness of expenses shall be made by the body that selected said counsel.

Section 5. Advance Payment of Expenses.

- (a) The corporation shall pay for or reimburse the reasonable expenses incurred by a Director, officer, employee or agent who is a party to a proceeding in advance of the final disposition of the proceeding if:
 - (i) The Director, officer, employee or agent furnishes the corporation a written affirmation of his or her good-faith belief that he or she has met the standard of conduct described in subparagraph (i) of paragraph (a) of Section 2 of this Article;
 - (ii) The Director, officer, employee or agent furnishes the corporation a written undertaking, executed personally or on his or her behalf, to repay the advance if it is determined that he or she did not meet such standard of conduct; and
 - (iii) A determination is made that the facts then known to those making the determination would not preclude indemnification under this Section 5.
- (b) The undertaking required by subparagraph (ii) of paragraph (a) of this Section 5 shall be an unlimited general obligation of the Director, officer, employee or agent, but need not be secured and may be accepted without reference to financial ability to make repayment.
- (c) Determinations and authorizations of payments under this Section shall be made in the manner specified under Section 4 hereof.

Section 6. Reimbursement of Witness Expenses. The corporation shall pay or reimburse expenses incurred by a Director in connection with his or her appearance as a witness in a proceeding at a time when he or she has not been made a named defendant or respondent in the proceeding.

Section 7. Insurance for Indemnification. The corporation may purchase and maintain insurance on behalf of a person who is or was a Director, officer, employee, fiduciary, or agent of the corporation or who, while a Director, officer, employee, fiduciary, or agent of the corporation, is or was serving at the request of the corporation as a Director, officer, partner, trustee, employee, fiduciary, or agent of any other foreign or domestic entity or employee benefit plan against any liability asserted against or incurred by him or her in any such capacity or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of this Article. Any such insurance may be procured from any insurance company designated by the Board of Directors of the corporation, whether such insurance Company is formed under the laws of Colorado or any other jurisdiction of the United States of America, including any insurance company in which the corporation has equity or any other interest, through stock or otherwise.

Section 8. Notice of Indemnification. Any indemnification of or advance of expenses to a Director in accordance with this Article, if arising out of a proceeding by or on behalf of the corporation, shall be reported in writing to the stockholders with or before the notice of the next stockholders' meeting.

Section 9. Indemnification of Officers, Employees and Agents of the Corporation. The Board of Directors may indemnify and advance expenses to an officer, employee or agent of the corporation who is not a Director of the corporation to the same or greater extent as to a Director if such indemnification and advance expense payment is provided for in these Bylaws, by resolution of the stockholders or Directors or by contract, in a manner consistent with the Colorado Business Corporation Act.

ARTICLE XIV Records Policy

Section 1. The Company shall maintain and keep a copy of each of the following records at its principal office:

- (a) The Company's Articles of Incorporation;
- (b) Bylaws;
- (c) Minutes of stockholders meetings and records of all actions taken by stockholders without a meeting for the past three years;
- (d) All written communications within the past three years to stockholders as a group or to the holders of any class or series of shares as a group;
- (e) A list of the names and business addresses of its current Directors and officers;
- (f) A copy of its most recent annual report; and all financial statements prepared for the periods ending during the last three years.

Section 2. A stockholder is entitled to inspect and copy, during regular business hours at the Company's principal office, any of the records of the Company described in Section 1 of this Article provided the stockholder gives the corporation written demand at least five business days before the date on which the stockholder wishes to inspect and copy such records.

Section 3. The Company may impose a reasonable charge, covering the costs of labor and material, for copies of any documents provided to the shareholder.

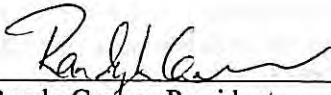
ARTICLE XV
Amendments

These Bylaws or any part thereof may be amended, added to or repealed by the vote of a majority of all the Directors constituting the Board of Directors of the corporation, at any regular meeting, or at any special meeting called upon notice as herein provided, in which notice a proposed amendment, addition to, or repeal shall be set forth.

Notwithstanding the above, no amendments to the Company's Articles of Incorporation or the Bylaws that concern Class B stock shall be made without approval of the Class B stockholders.

IN WITNESS HEREOF, the Board of Directors, now hereby adopts the foregoing Bylaws as the Bylaws of The Montezuma Valley Irrigation Company, this 13th day of December, 2011.

THE MONTEZUMA VALLEY IRRIGATION COMPANY

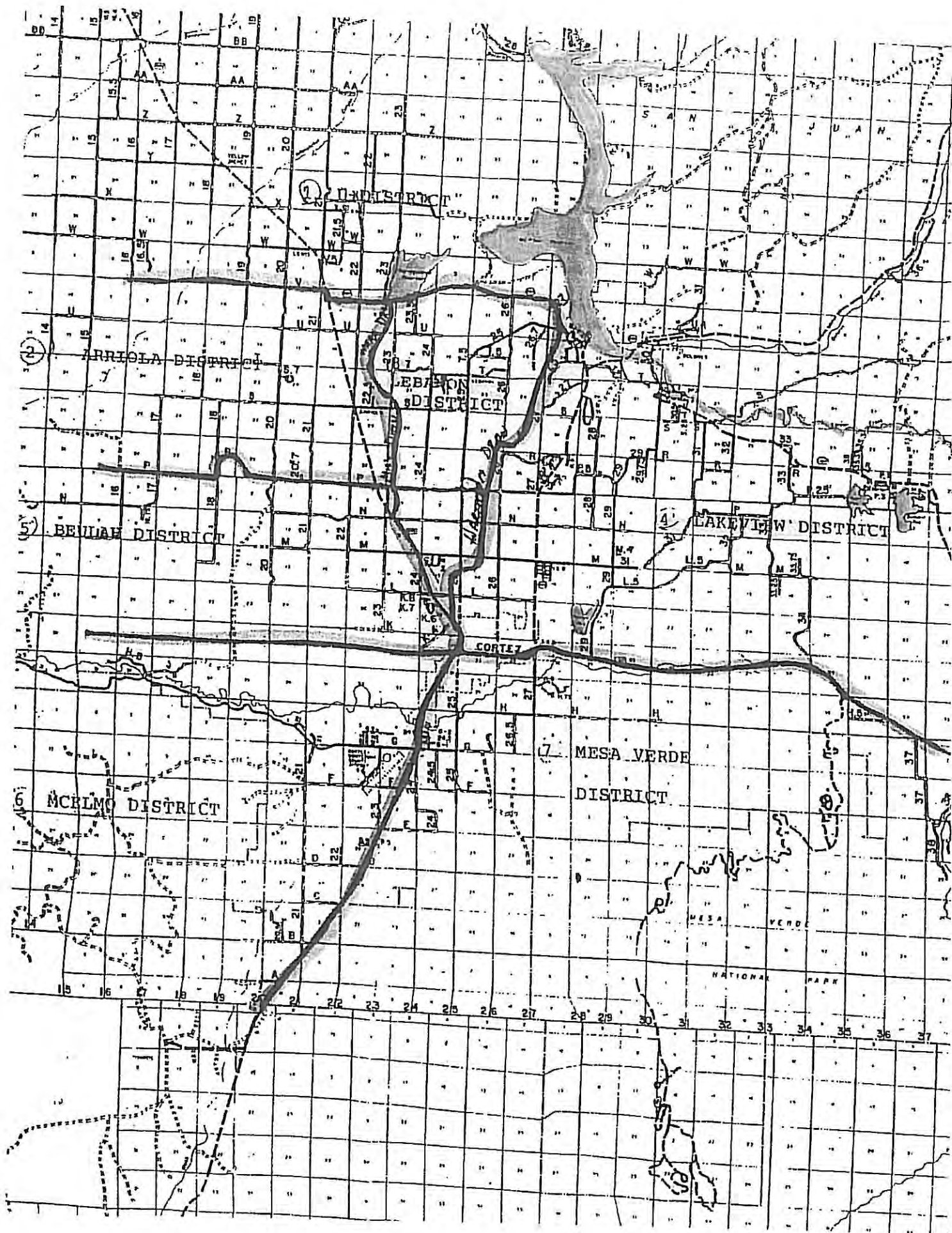


Randy Carver, President

ATTEST:



Maria Koppenhafer, Secretary



CERTIFICATE OF INCORPORATION
of
THE MONTEZUMA VALLEY IRRIGATION COMPANY

KNOW ALL MEN BY THESE PRESENTS, That we,

E. Tyler Smith , Charles L. Allen
and R. M. Kahator , residents of the State
of Colorado, have associated ourselves together as a cor-
poration under the name and style of THE MONTEZUMA VALLEY
IRRIGATION COMPANY, for the purpose of becoming a body
corporate and politic under and by virtue of the laws of the
State of Colorado, and in accordance with the provisions of
the laws of said State, we do hereby make, execute and
acknowledge in duplicate this certificate in writing of our
intention so to become a body corporate under and by virtue
of the said laws.

FIRST: The corporate name and style of our said
corporation shall be THE MONTEZUMA VALLEY IRRIGATION COMPANY.

SECOND: The objects for which our said corporation
is formed and incorporated are:

1. To take over and accept, in accordance with the
provisions of the decree of the District Court of the County
of Montezuma and State of Colorado, heretofore and on, to-wit,
the 21st day of September, A. D. 1920, duly entered in a pro-
ceeding in said Court then pending entitled, "In the Matter of
the Petition to Dissolve the Montezuma Valley Irrigation Dis-
trict," and thereafter to repair, improve, use, operate,
control, manage and maintain the irrigation system of The
Montezuma Valley Irrigation District, which said district was
by the provisions of said decree duly dissolved, and which
said decree did provide for the transfer and conveyance to

this company upon its incorporation of the entire physical irrigation system of said district, including all dams, reservoirs, canals, rights of way, priorities, franchises, privileges and other property of any kind or nature, used in the operation of said system, and also for the transfer to this company of all contracts covering perpetual water rights which constituted a liability of said district, and other contracts pertaining to the furnishing of water for which said district was liable, to be assumed by this company, and likewise for the transfer of all notes and contracts in connection therewith still held by said district and executed prior to the rendition of said decree, and for the transfer and delivery to the proper officer of this company of all moneys constituting the general or maintenance fund of said district, and which said decree did further provide that upon the consummation thereof, all owners of the assessed lands lying within said district, and all owners of lands holding perpetual water rights, and all holders of contracts for the use of said water with said irrigation district, directly or as assignee, shall be entitled to shares of the capital stock of this company on the basis of one share for each acre of land so owned by them and theretofore subject to assessment or contract as aforesaid.

2. To build, construct, purchase, acquire, hold, use, operate, control, manage and maintain ditches, canals, pipe lines, and reservoirs, for the purpose of carrying, storing and distributing water for irrigation and domestic purposes, and to acquire, by purchase or otherwise, ditches, canals, pipe lines or reservoirs, and ditch, reservoir or irrigation interests, whether represented by filings, franchises, easements, stock in other corporations or priorities to the use

of water under decrees of court.

3. To distribute and supply water to the stockholders of this company, for domestic and irrigation purposes, proportionately and equitably, according to the available supply of water, in the ratio that each share of stock in this company bears to the total number of shares issued, and which is to be distributed to the stockholders so entitled thereto upon such terms and at such times and under such conditions as may be hereafter fixed by the by-laws of this company; and to others entitled thereto under contracts entered into with The Montezuma Valley Irrigation District and assumed by this company or because vested with perpetual water rights, upon such terms and at such times and under such conditions as such contractual or vested rights may entitle them to.

4. This company shall have the power to borrow money and to execute notes, bonds, mortgages, debentures or other evidences of indebtedness, securing the same by mortgage or deed of trust, as may be desirable in the premises; and, generally, to do and perform any and all things necessary or convenient in the carrying out of the aforesaid purposes.

IN ADD: The capital stock of our said company shall be Fifty Thousand Dollars (\$50,000), to be divided into Fifty Thousand (50,000) shares of One Dollar (\$1) for each share, and each share of stock shall evidence the right to the use of water from the irrigation system of the company for the irrigation of one acre of land, and which said stock may be assessed for the purpose of raising money to pay for property acquired by the company or for operating or maintaining the system of the company, in accordance with the provisions of by-laws to be hereafter adopted; and said stock shall be fully paid; *the company is a mutual company and not for profit*

FOURTH: Our said corporation is to exist for the

term of twenty (20) years.

FIFTH: The affairs and management of our said company is to be under the control of a Board of Directors, consisting of seven members, and W. I. Tyler,
E. S. Porter, E. J. Pryce, E. H. Kittell, P. M. Webster,
John J. Downey and H. T. Morgan.

are hereby selected to act as said Directors, and to manage the affairs and concerns of our said company, for the first year of its corporate existence.

SIXTH: The cumulative system of voting is hereby adopted.

SEVENTH: The principal business of our said company will be carried on in the County of Montezuma in the State of Colorado.

EIGHTH: The principal office of our said company shall be kept at Cortez, Montezuma County, Colorado.

NINTH: The Board of Directors of said company shall have the power to make such prudential by-laws as they may deem proper for the management of the affairs of this company, according to the statute in such case made and provided.

IN TESTIMONY WHEREOF, We have hereunto set our hands and seals this 16th day of October, A. D. 1920.

W. I. Tyler (SEAL)

Charles H. Allen (SEAL)

P. M. Webster (SEAL)

STATE OF COLORADO,
CITY AND COUNTY OF DENVER,
County of Montezuma

} ss.

I, Elisabeth M. Murphy, a Notary Public
in and for said County, in the State aforesaid, do hereby

certify that E. Tyler Smith

Charles L. Allen and B. M. Webster

all personally known to me to be the persons whose names are
subscribed to the foregoing certificate of incorporation,
executed in duplicate, appeared before me this day in person
and severally acknowledged that they signed, sealed and
delivered the said instrument of writing as their free and
voluntary act and deed for the uses and purposes therein set
forth.

Given under my hand and notarial seal this 21st

day of October, 1920.

My commission expires March 18, 1922



Edw. J. M. M. M. M.
Notary Public.

Certificate of Incorporation

The Montezuma
Valley Irrigation
Company

(Not for profit)

FILED in the office of the Secretary of
State of the State of Colorado on the
18 day of October
A. D. 1920 at 11:10 P. M.
The record is kept at the office of the Secretary of State
at Denver, Colorado
Filed Clerk *Robertson*

This document has been inspected
and properly entered on the Re-
cords of The Flat Tax Department

Dated *July 29, 1920*
George E. Clerk

cut 577 250

Indefinite
July 27, 1920
Robertson

504-0250

CERTIFICATE OF SEAL

of

THE MONTEZUMA VALLEY IRRIGATION COMPANY.

We the undersigned, E. H. Kittle
President, and John W. Busch, Secretary, of
The Montezuma Valley Irrigation Company, a corporation duly
organized and existing under and by virtue of the laws of the
State of Colorado, hereby certify:

That at a meeting of the Board of Directors of said
company, held on the 26th day of October, A. D.
1920, the following was adopted as the corporate seal of said
company: The name of the Company, "THE MONTEZUMA VALLEY IRRI-
GATION COMPANY," arranged in a circular form, with the word,
"SEAL" in the center of the circle; and we do hereby certify
that the following is a correct impression of the said seal,
which was adopted by said Board of Directors;

IN WITNESS WHEREOF, We, E. H. Kittle
President, and John W. Busch, Secretary,
of the said The Montezuma Valley Irrigation Company, have
hereunto set our hands and attached the seal of said company,
this 26th day of October, A. D. 1920.

E. H. Kittle
President
John W. Busch
Secretary

STATE OF COLORADO

County of Montezuma

ss.

E. H. Kittle and
John W. Busch, being first duly sworn, upon oath
depose and say: That they are respectively the President and
Secretary of The Montezuma Valley Irrigation Company; that they
have read the foregoing certificate and know the contents thereof
and that the facts therein set forth are true.

John W. Busch
Subscribed and sworn to before me this 26 day of
October, A. D. 1920.
~~My commission expires~~

Mr. Brumley
Clerk of District Court

CERTIFICATE OF IMPRESSION
OF CONTRACT'S SEAL

The Newby
Valley Irrigation
Company

13. Amount
\$13.15
Newby 250

-0250 - 1005

[Signature]

7000
Dec 2 - 1920
Newby 250

CERTIFICATE OF CORPORATE EXTENSION

STATE OF COLORADO,)
) SS
MONTEZUMA COUNTY.)

We, H. E. Carpenter, president of The Montezuma Valley Irrigation Company and Jeff McNeill, secretary of said company, a corporation organized as a mutual ditch company under the laws of the State of Colorado, by Original Articles of Incorporation, dated the 16th day of October, 1920, and duly filed in the office of the Secretary of said State, and in the office of the clerk and recorder of said county, do hereby certify that a special meeting of the stockholders of said company was called by stockholders owning more than ten percent of the entire capital stock of said company and that the following notice was given by publication, for two successive weeks, in three issues of The Montezuma Valley Journal, the same being a legal weekly paper printed nearest the place where the principal operations of said company are carried on, to-wit:

NOTICE TO STOCKHOLDERS

Notice is hereby given that there will be a special meeting of the stockholders of The Montezuma Valley Irrigation Company held at its office in Cortez, Colorado, on Monday, the 28th day of April, 1941, at 2:00 o'clock P. M., to consider the extension, continuance and renewal of the term of incorporation of said company.

This notice is given by the undersigned stockholders of The Montezuma Valley Irrigation Company who own more than ten per cent of the entire capital stock of said company.

Cortez, Colorado, March 24th, 1941.

CORTEZ LAND & SECURITIES CO.
By H. E. Carpenter, Pres.

John J. Downey.
H. E. Carpenter.
W. L. Glenn.
Geo. McNeel.
E. W. Neal.

First Publication April 10th, 1941
Last Publication April 24th, 1941

That in addition to the publication of said notice a copy of the same addressed to each stockholder of the Company was deposited in the postoffice at Cortez, Colorado, at least thirty days before such meeting.

That pursuant to said notice a special meeting of the stockholders of said corporation was held at its office in Cortez, on the 28th day of April, 1941, at 2:00 o'clock P. M. to consider the extension, continuance and renewal, of the term of incorporation of said corporation and that at such meeting by a majority of the votes cast upon the question the term of The Montezuma Valley Irrigation Company was extended in perpetuity.

IN WITNESS WHEREOF, We, the said H. E. Carpenter, president of said corporation, and Jeff McNeill, secretary of said corporation, have hereunto set our hands and caused the seal of said corporation to be affixed to this certificate in duplicate this 28th day of April, A. D. 1941, to the intent that the same be filed for record as required by the terms of the statute in such case made and provided.


H. E. Carpenter
President

Jeff McNeill
Secretary

SECRETARY OF STATE
RECEIVED

FILED
COLO. DEPT. OF STATE
402948 E 198

30 MAY 19 10:20

ARTICLES OF AMENDMENT
to the

ARTICLES OF INCORPORATION

of

MONTEZUMA VALLEY IRRIGATION COMPANY

1. The name of this corporation is Montezuma Valley Irrigation Company.

At an Annual Meeting of the members and stockholders of said company held at Cortez, Colorado, on December 11, 1978, the following amendment was proposed and, after being put to vote, was adopted, said amendment being as follows:

Article Third was amended to read as follows:

THIRD: The capital stock of our said company shall be Fifty Thousand Dollars (\$50,000), to be divided into Fifty Thousand (50,000) shares of One Dollar (\$1) for each share, and each share of stock shall evidence the right to the use of water from the irrigation system of the company for the irrigation of one acre of land, and which said stock may be assessed for the purpose of raising money to pay for property acquired by the company or for operating or maintaining the system of the company, in accordance with the provisions of by-laws to be hereafter adopted; and said stock shall be fully paid. No transfer of ownership on the company books will be made whereby stock ownership will be divided so that any one ownership interest will be of less than 5 shares. The following transfers will be excepted from such restriction: (1) Division of ownership made prior to the adoption of this restriction will not be affected. (2) Transfers of less than 5 shares to a stockholder resulting in an increase in the number of shares owned by the transferee to a number less than 5 shares, will be transferred upon the company books provided the transferor retains ownership of 5 shares or more or transfers all of the shares owned by such transferor. (3) Divisions of ownership pursuant to order of a Court of competent jurisdiction of any number of shares will be transferred upon the company books.

COMPUTER UPDATE COMPLETE
JA

3. A quorum was present at such meeting, and such amendment received the affirmative vote of more than two thirds of the votes which members present at such meeting or represented by proxy were entitled to cast.

IN WITNESS WHEREOF the President of said Corporation and the Secretary thereof have set their hands and seals at Cortez, Colorado, this 11th day of December, 1978.

MONTEZUMA VALLEY IRRIGATION COMPANY

By Walter E. Ertel
President

ATTEST:

Paul E. Leonard
Secretary

SEAL:

STATE OF COLORADO)
County of Montezuma) ss.

The foregoing Articles of Amendment were acknowledged before me this 13 day of May, 1980, by Walter E. Ertel as President and Paul E. Leonard as Secretary of Montezuma Valley Irrigation Company, a Colorado corporation.

Witness my hand and official seal.

Robert B. Wilson
Notary Public

MY COMMISSION EXPIRES MAY 12, 1983

12-17-81

NOT FOR FORTH

ARTICLES OF AMENDMENT

17 APR 01

OF

55177 5172

THE MONTEZUMA VALLEY IRRIGATION COMPANY

Pursuant to the vote and decree of the Board of Directors and shareholders of the above named Corporation, The Articles of Incorporation of The Montezuma Valley Irrigation Company, shall be amended and the undersigned officers, pursuant to Section 7-2-109, CRS, as amended, state the original Articles Of Incorporation shall be changed and amended as follows:

- a. BE IT RESOLVED that paragraph numbered 3 of Article Second of the Certificate of Incorporation be amended by adding thereto the following clause

" . . . and to others entitled thereto under contracts entered into by the Corporation from time to time, provided however that no such contract may be entered into by the Board of Directors for the sale of any of this Corporation's water except that which is surplus municipal domestic, or industrial water not required to meet the needs of the shareholders, and further provided however that no such contract may be entered into by the Board of Directors for a period exceeding one year without the approval of a majority of the shares voted thereon at a special meeting of shareholders called for that purpose or at the regular annual meeting of shareholders."

The amendments as set out above, were adopted by shareholders of The Montezuma Valley Irrigation Company on December 10, 1983.

The Montezuma Valley Irrigation Company has 33,284 shares outstanding and 33,284 shares were entitled to vote thereon. 9,570 shares were represented at the above-described meeting.

1. The number of shares voting for adoption of the amendments was: 8,800 shares.
2. The number of shares voting against adoption of the amendments was: 329 shares.
3. The number of shares abstaining was: 441.

Signed and Dated this 10th day of January, 1984.

THE MONTEZUMA VALLEY IRRIGATION
COMPANY

By: *Donald W. Schmitt*

President

ATTEST:

Paula E. Horvath
Secretary


STATE OF COLORADO)
) ss.
County of Montezuma)

Don Schwindt, President of The Montezuma Valley Irrigation Company, being sworn, says: That the facts set forth in the foregoing Articles of Amendment are true to the best of his knowledge information and belief.

Subscribed and sworn to before me this 10th day of January, 1984.

WITNESS my hand and official seal.

My commission expires: May 5, 1984.


Kelly R. McCoy
Notary Public
22 East Main Street
Cortez, Colorado 81321

STATE OF COLORADO STATEMENT OF CHANGE OF REGISTERED OFFICE AND/OR REGISTERED AGENT

PLEASE PRINT CLEARLY • • • • • PLEASE READ INSTRUCTIONS ON REVERSE SIDE

APR 20 1988

FOR OFFICE USE ONLY

The Exact Corporate Name, current Registered Office & current Registered Agent are:

Montezuma Valley Irrigation Co.
121 S. Main Street
Montezuma, CO 81401

007.724

04-29-88 08:17
581046376 51010

FILING FEE \$10.00

Corporation named herein makes the following statement:

The State or Country of Incorporation is: Colorado

3 The complete street address of the Corporation's REGISTERED OFFICE shall be changed to:

60 S. Cactus Cortez, CO 81321

4 The name of the Corporation's SUCCESSOR REGISTERED AGENT IS:

Melissa Harvey

The address of the Corporation's Registered Office and the address of the Corporation's Registered Agent, as changed, will be identical.

5 The complete street address of the Corporation's principal place of business in Colorado is:

60 S. Cactus Cortez, CO 81321

"Address" means street name and number, city or town, and United States post office zip code designation. If by reason of rural location or otherwise, a street name shall not exist, other appropriate "address" filing as nearly as possible the actual physical location may be substituted, but in all such exceptional cases the rural free delivery route, the county, and the United States post office zip code designation shall be included.

IMPORTANT! PLEASE READ CAREFULLY!
If you are a not-for-profit corporation or a limited partnership, this form must be notarized. If you are a business (profit) corporation, no notarization is required.

STATE OF COLORADO
COUNTY OF MONTESUMA

Montezuma Valley Irrigation Co. (Note 1)

By Kevin M. Campbell (Note 2)

Its ✓ President
Its _____ Registered Agent (Note 3)
Its _____ Authorized Agent
(Foreign Corporations Only)

Subscriber and sworn to before me this 27th day of April 1988
My commission expires February 25, 1989

COMPUTER UPDATE COMPLETE

- Notes:
- Exact name of corporation making the statement.
 - Regarding profit corporations: This statement may be executed by the registered agent when it involves only a registered address change. A copy of this statement has been forwarded to the corporation by the registered agent.
 - Signature and title of officer signing for the corporation must be president or vice president, FOR A FOREIGN CORPORATION WITHOUT SUCH OFFICERS, THE AUTHORIZED AGENT.
 - Signature of notary public must be exactly as shown on notarial seal, and must agree with notarial commission.

SUBMIT THIS STATEMENT WITH PAYMENT TO:
CORPORATE REPORT SECTION
DEPARTMENT OF STATE
P. O. BOX 5861

Filing Fee \$10.00

KW

186191
Certificate of Renewal

*The Montezuma Valley Irrigation
Company*

DOMESTIC

RECORDED

BOOK 447 PAGE 212

FILED in the office of the Secretary of
State of the State of Colorado, on the
day of *May*
A.D. 1941, at *10* o'clock *A.M.*

WALTER F. MORRISON
Secretary of State

Filing Clerk *Heaven*
Old Age Pension Fund

This document has been inspected
and is hereby filed on the Re-
cords of the Flat Tax Department.

Date *July 29, 1948*
Boysen Clerk

UK

APPENDIX F: CWCB APPLICATION

COLORADO WATER CONSERVATION BOARD WATER PROJECT LOAN APPLICATION

Instructions: This application should be typed or printed neatly with black ink. Attach additional sheets as necessary to fully answer any question or to provide additional information that would be helpful in the evaluation of this application. When finished, please sign and return this application to:

THE COLORADO WATER CONSERVATION BOARD
Finance Section
1580 Logan St., Suite 600
Denver, CO 80203
Attn: Anna Mauss, P.E.
Phone: (303) 866-3441 x3224 Fax (303) 894-2578
Email: anna.mauss@state.co.us

Part A. - Description of the Applicant (Generally, the applicant is also the prospective owner and sponsor of the proposed project)

1. Name of applicant Montezuma Valley Irrigation Company
Mailing Address P O Box 1056
Cortez, Co 81321
Business Phone (970) 565-3332 Fax (970) 565-8505
Federal ID Number 84 - 0270210 email dmagnuson@mvic.info

2. Person to contact regarding this application:

Name Don Magnuson
Position/Title General Manager
Address P O Box 1056 Cortez, Co 81321
Business Phone (970) 565-3332 Cell (970) 739-5988
Email dmagnuson@mvic.info

3. Type of organization (Ditch Co., Irrigation District, Municipality, etc.): Ditch Company
Date of Annual Meeting 1/21/12

Is the organization incorporated in the State of Colorado? YES ☒ NO ☐ (If YES, please include a copy of the articles of incorporation, and the bylaws)

CWCB Water Project Loan Application

4. Please provide a brief description of the owner's existing water supply facilities and describe any existing operational or maintenance problems. Attach a map of the service area

See attached.

For existing facilities indicate:

Number of shareholders 1407 or Number of customers served _____

Current Assessment per share \$ 27.50 Number of shares 33,284

Number of acres irrigated more than 30,000 Water Right: 795 CFS.

Average water diverted per year: 136,039 acre-feet.

Part B. - Description of the Project

1. Name of the Project Lonepine Pipeline and May Pipeline

2. Purpose of this loan application. Check one.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

New project

Rehabilitation or replacement of existing facility

Enlargement of existing facility

Emergency Repair

Other (describe) _____

3. If the project is for rehabilitation of an existing reservoir, is the reservoir currently under a storage restriction order from the State Engineer? YES ☐ NO ☐

4. General location of the project. (Please include county, and approximate distance and direction from nearest town, as well as legal description, if known.)

See attached.

5. Please provide a brief narrative description of the proposed project including purpose, need, facilities, type of water uses to be served and service area. Attach separate sheet, if needed.

See attached.

6. Will the acquisition of additional water rights be necessary? YES ☐ NO ☒

If YES, please explain. _____

CWCB Water Project Loan Application

7. Please list the names, addresses and phone numbers of the Applicants' engineer(s) and attorney(s).

<u>NAME</u>	<u>ADDRESS and PHONE</u>
Lindsay George (Applegate Group)	118 W 6th Street Glenwood Springs, Co 81601 (970)456-2414
Kent Holsinger (Holsinger Law)	104 Broadway, 3rd Floor Denver, Co 80203 (303)722-2828
_____	_____

8. List any feasibility studies or other investigations that have been completed or are now in progress for the proposed project. If so, submit one copy of the study with this application

Lindsay George with the Applegate Group has investigated the options for removing trash and where pressure control should be placed to protect the pipelines.

9. Estimated cost of the project. Please include estimated engineering costs, and estimated construction costs, if known.

Estimated Engineering Costs: \$ 23,900
Estimated Construction Costs: \$ 348,600
Estimated Other Costs: \$ -0- (land, water rights purchase, etc.)
Estimated Total Costs: \$ 372,500

10. Loan amount and terms you are requesting.

Requested Loan Amount: \$ 338,602.50 (Usually 90 % of est. Total Costs)
Term (length) of loan: 30 years (Usually 10, 20, or 30 years)
Interest Rate: 2.75 % (Please call for our current rates)

Part C. - Project Sponsor Financial Information

Because the CWCB's Fund is a revolving fund, it is important that the project sponsor have the financial capacity to repay any loans made by the CWCB. The following information is needed to assist the CWCB in a preliminary assessment of the applicant's financial capacity. The project sponsor will submit the three most recent annual financial statements.

1. List any existing long-term liability (multi-year) or indebtedness that exceeds one thousand dollars. For example, bank loans, government agency loans, bond issues, accounts payable, etc. Include names and addresses of lenders, amounts, due dates and maturity dates.

CWCB Water Project Loan Application

<u>Lender Name & Address</u>	<u>Remaining Amount</u>	<u>Annual Payment</u>	<u>Maturity Date</u>
Colorado Water Conservation Board	2,949,895	135,000	2042
Dolores State Bank	252,000	LOC	12/30/12
Dolores Water Conservancy District (BOR)	1,706,400	63,200	12/31/38

2. Are any of the above liabilities now in default, or been in default at any time in the past?

YES ☒ NO ☐. If YES, please give detailed explanation.

See attached

3. Please provide a brief narrative description of sources of funding, in addition to the CWCB, which have been explored for this project (Examples would be Banks, USDA Rural Development, NRCS, Colorado Water Resources and Power Development Authority, Colorado Division of Local Government, etc.).

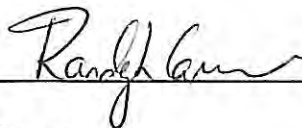
The only other source of funding available at this time would be a commercial lending institution. Such a funding source is not feasible with the lien position held by CWCB and DWCD.

4. What collateral will you be offering for this loan? Possibilities include a pledge of revenues, the project itself, real estate, water rights.

Pledge of assessment revenues and the projects themselves.

The above statements are true, to the best of my knowledge:

Signature of Applicant



Printed Name Randy Carver

Title President

Date January 31, 2012

ATTACHMENT
CWCB Water Project Loan Application
Montezuma Valley Irrigation Company
1/31/12

Part A. 4. Please provide a brief description of the owner's existing water supply facilities and describe any existing operational or maintenance problems.

MVI has water rights and contracts with the Bureau of Reclamation and the Dolores Water Conservancy District for 153,400 acre feet of water from the Dolores River. These water rights include direct diversion from the Dolores River as well as storage in Groundhog Reservoir and Narraguinnep Reservoir and by contract in McPhee Reservoir. There is approximately 124 miles of conveyance system with approximately 15 miles of gravity pressurized pipeline and the balance being earthen canal some of which is clay lined.

Part B. 4. General location of the project.

MVI is located in Montezuma County and services the area around Cortez, Colorado. The Lonepine Pipeline begins approximately 9 miles northwest of Cortez and terminates approximately 3 miles northwest of Cortez. The May Pipeline begins approximately 5 miles north of Cortez and terminates approximately 2 miles northwest of Cortez. See map showing the project location in the feasibility study.

Part B. 5. *Please provide a brief narrative description of the proposed project including purpose, need, facilities, type of water uses to be served and service area.*

In the past three years, MVI has installed approximately ten miles of HDPE pipeline to improve delivery efficiencies. The May Lateral was replaced with a pipeline in 2009 and the lower portion of the Lonepine Lateral was placed in pipe in 2010 and 2011. Both of these pipelines are enclosed systems and deliver pressurized water. Many of the turnouts are connected directly to sprinkler systems.

Settling basins were provided for both of these pipelines to reduce the silt entering the pipelines. However, adequate control or removal of the trash was not provided. Since the installation of these two pipelines, a number of trash problems have been encountered including a 2x4 getting stuck in a pressure reducing valve and a four inch service line completely plugging with sticks. It is alarming to consider the impact that may have already been created by allowing trash to enter these pipelines.

Additionally, the Lonepine Pipeline needs additional pressure reduction on the lower end. The Lonepine Pipeline is operating over the recommended pressure as indicated in the feasibility study. It is our concern that the stress on the pipe threatens the integrity of the system and shortens the life expectancy of the pipe.

Lastly, on the May Pipeline, Dynosonic Ultra Sonic Sensors and digital meters were installed without furnishing a power source. Thus, a battery is transported from one turnout to the next to set the flow but no totalizing record is collected. State of the art equipment installed without the ability to collect the basic information available with metering.

There is a need first of all to protect this investment. Time is of the essence to prevent further damage to these state of the art systems by installing trash screens at the top of the pipelines. MVI intends to install a traveling screen and cross conveyor at the top of the Lonepine Pipeline and to install a wedge wire screen at the top of the May Pipeline to eliminate trash entering the pipelines.

MVI has determined that establishing an accurate delivery record is a high priority. All turnouts on the Lonepine Pipeline were fitted with ultra sonic sensors, control panel and solar panel allowing water users to monitor their delivery on site while collecting accurate data for MVI delivery records. It is MVI's intent to install control panels (with observation windows) and solar panels on all the turnouts on the May Pipeline as well to furnish the data necessary to maintain this same accurate delivery record on the May Pipeline.

Part C. 2. Are any of the above liabilities now in default, or been in default at any time in the past?

The payment due DWCD December 1, 2011 is delinquent in the amount of \$120,569. With MVI operating expenses underfunded, the choice was made to let the DWCD payment go delinquent until 2012 stock assessments were available to make this payment rather than further increase the line of credit with the Dolores State Bank. At the January 21, 2012 Annual Stockholder Meeting, the stockholders approved a \$7.00 increase in the stock assessment (\$20.50 to \$27.50) and a \$75.00 increase in the account fee (\$200.00 to \$275.00) specifically to correct the underfunding and debt accumulation resulting from the previous underfunding of expenses.